

JVC

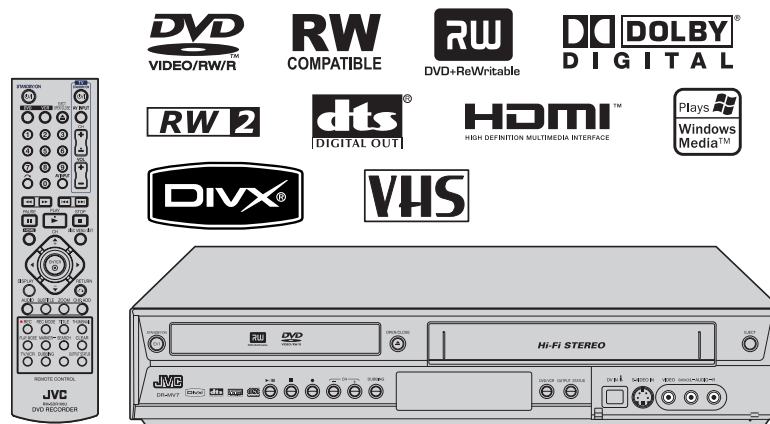
SERVICE MANUAL

DVD RECORDER/VIDEO CASSETTE RECORDER

DR-MV7SUS

Area Suffix

US U.S.A.



DR-MV7SUS [D6RV21]

Please refer to other service manual HR-XVC16B,HR-XVC17S (No. YD093)
for the item without the description.

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SPECIFICATION

DR-MV7SUS



General	
Power requirements	AC120 V, 60 Hz
Power consumption	Power On : 27 W, Power Off : 0.7 W
Dimensions (approx.)	430 X 78.5 X 310 mm (16.9 x 3.1 x 12.2 inches) (w x h x d)
Weight (approx.)	5.2 kg (11.44 lbs)
Operating temperature	5°C to 35°C (41°F to 95°F)
Operating humidity	5 % to 90 %
Signal system	NTSC
Recording	
Recording format	DVD VideoRecording, DVD-VIDEO
Recordable discs	DVD-ReWritable, DVD-Recordable, DVD+ReWritable, DVD+Recordable
Recordable time	DVD ; Approx. 1 hour 20 minutes (XP mode), 2 hours (SP mode), 4 hours (LP mode), 6 hours (EP mode) VCR ; SP: 2 HOURS (T-120), SLP: 6 HOURS (T-120)/8 HOURS (T-160)
Video recording format	
Sampling frequency	27MHz
Compression format	MPEG 2
Audio recording format	
Sampling frequency	48kHz
Compression format	Dolby Digital
VCR Specifications	
Head system	Four head helical scan azimuth system
Timer	12-hour display type with AM, PM
Tape speed	SP: 33.35 mm/sec, LP: 16.67 mm/sec, SLP: 11.12 mm/sec
Tape width	12.7 mm
Rewind time	About 180+-30 seconds (T-120)
Antenna	75 ohms (VHF/UHF)
VHF output signal	Channel 3 or 4 (Switchable)
Channel coverage	VHF: 2-13, UHF: 14-69, CATV: 1-125 (4A, A-W, W+1 - W+84, A-5 - A-1)
Frequency range	20 Hz to 20 kHz
Signal-to-noise ratio	More than 43 dB
Dynamic range	More than 88 dB
Channel separation	More than 60 dB
DVD Specifications	
Laser system	Semiconductor laser, wavelength 650 nm
Frequency response	DVD (PCM 48 kHz): 8 Hz to 22 kHz, CD: 8 Hz to 20 kHz
Signal-to-noise ratio	More than 95dB
Harmonic distortion	Less than 0.008%
Dynamic range	More than 90 dB
Inputs	
ANTENNA IN	Antenna or CATV input, 75 ohms
VIDEO IN (AV1,2)	1.0 Vp-p 75 ohms, sync negative, RCA jack x 2
AUDIO IN (AV1,2)	-6 dBm more than 47 kohms, RCA jack (L, R) x 2
S-VIDEO IN	(Y) 1.0 V (p-p), 75Ω, negative sync, Mini DIN 4-pin x 1 (C) 0.286 V (p-p) 75Ω
DV IN	4 pin (IEEE 1394 standard)
Outputs	
VIDEO OUT	1.0 Vp-p 75Ω, sync negative, RCA jack x 1
S-VIDEO OUT	(Y) 1.0 V (p-p), 75Ω, negative sync, Mini DIN 4-pin x 1 (C) 0.286 V (p-p) 75
COMPONENT VIDEO OUT	(Y) 1.0 V (p-p), 75Ω, negative sync, RCA jack x 1
(PROGRESSIVE SCAN)	(Pb)/(Pr) 0.7 V (p-p), 75Ω, RCA jack x 2
HDMI video/audio output	19 pin (HDMI standard, Type A)
Audio output (digital audio)	0.5 V (p-p), 75Ω, RCA jack x 1
Audio output (optical audio)	Optical connector x 1
Audio output (analog audio)	2.0 Vrms (1 kHz, -6 dB), 600 Ω, RCA jack (L, R) x 2
RF OUT	Channel 3 or 4 (Switchable)
Accessories	
Video cablex 1,Audio cable (L, R)x 1,RF 75-ohm Coaxial Cable x 1, Remote control x 1, Batteries x 2	

SECTION 1 PRECAUTION

1.1 SAFTY PRECAUTIONS

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

1.1.1 Precautions during Servicing

- (1) Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.
- (2) Parts identified by the  symbol and shaded () parts are critical for safety. Replace only with specified part numbers.

NOTE :

Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

- (3) Fuse replacement caution notice.
Caution for continued protection against fire hazard.
Replace only with same type and rated fuse(s) as specified.
- (4) Use specified internal wiring. Note especially:
 - Wires covered with PVC tubing
 - Double insulated wires
 - High voltage leads
- (5) Use specified insulating materials for hazardous live parts.
Note especially:
 - Insulation Tape
 - PVC tubing
 - Spacers
 - Insulation sheets for transistors
 - Barrier
- (6) When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

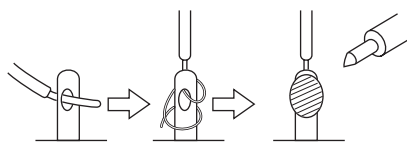


Fig.1-1-1

- (7) Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)
- (8) Check that replaced wires do not contact sharp edged or pointed parts.
- (9) When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

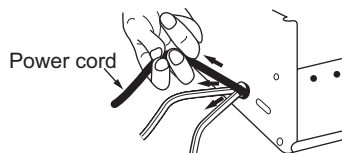


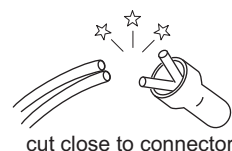
Fig.1-1-2

- (10) Also check areas surrounding repaired locations.
- (11) Products using cathode ray tubes (CRTs) In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission.

Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

- (12) Crimp type wire connector In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

- **Connector part number** :E03830-001
- **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.
- **Replacement procedure**
 - a) Remove the old connector by cutting the wires at a point close to the connector. Important : Do not reuse a connector (discard it).



cut close to connector

Fig.1-1-3

- b) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

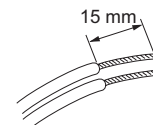


Fig.1-1-4

- c) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

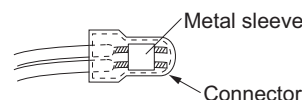


Fig.1-1-5

- d) As shown in Fig.1-1-6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

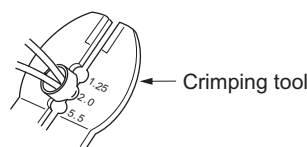


Fig.1-1-6

- e) Check the four points noted in Fig.1-1-7.

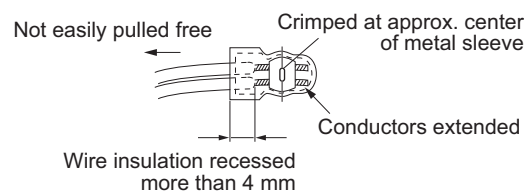


Fig.1-1-7

1.1.2 Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

(1) Insulation resistance test

Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

(2) Dielectric strength test

Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See Fig.1-1-11 below.

(3) Clearance distance

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See Fig.1-1-11 below.

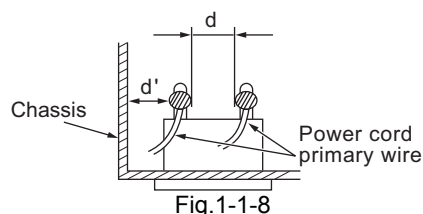


Fig.1-1-8

(4) Leakage current test

Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).

Measuring Method : (Power ON) Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See Fig.1-1-9 and following Fig.1-1-12.

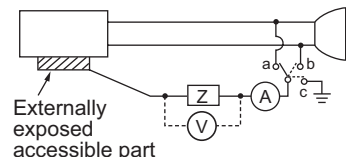
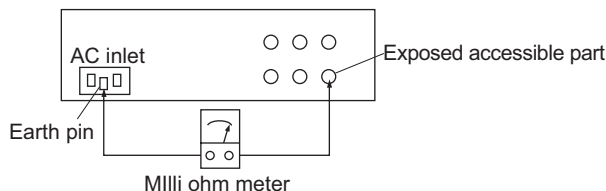


Fig.1-1-9

(5) Grounding (Class 1 model only)

Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.). Measuring Method:

Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See Fig.1-1-10 and grounding specifications.



Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	$Z \leq 0.1 \text{ ohm}$
Europe & Australia	$Z \leq 0.5 \text{ ohm}$

Fig.1-1-10

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	$R \geq 1 \text{ M}\Omega/500 \text{ V DC}$	AC 1 kV 1 minute	$d, d' \geq 3 \text{ mm}$
100 to 240 V			AC 1.5 kV 1 minute	$d, d' \geq 4 \text{ mm}$
110 to 130 V	USA & Canada	$1 \text{ M}\Omega \leq R \leq 12 \text{ M}\Omega/500 \text{ V DC}$	AC 1 kV 1 minute	$d, d' \geq 3.2 \text{ mm}$
110 to 130 V 200 to 240 V	Europe & Australia	$R \geq 10 \text{ M}\Omega/500 \text{ V DC}$	AC 3 kV 1 minute (Class II) AC 1.5 kV 1 minute (Class I)	$d \geq 4 \text{ mm}$ $d' \geq 8 \text{ mm}$ (Power cord) $d' \geq 6 \text{ mm}$ (Primary wire)

Fig.1-1-11

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	$1 \text{ k}\Omega$	$i \leq 1 \text{ mA rms}$	Exposed accessible parts
110 to 130 V	USA & Canada	$0.15 \mu\text{F}$ and $1.5 \text{ k}\Omega$	$i \leq 0.5 \text{ mA rms}$	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	$2 \text{ k}\Omega$	$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	Antenna earth terminals
		$50 \text{ k}\Omega$	$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	Other terminals

Fig.1-1-12

NOTE :

These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

1.2 Preventing static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

1.2.1 Grounding to prevent damage by static electricity

Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as DVD recorder.

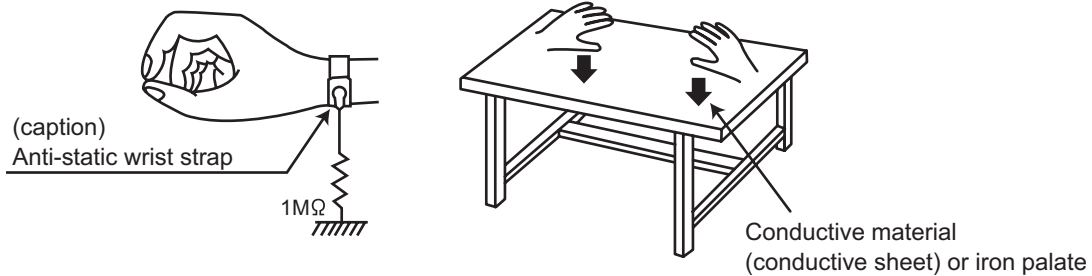
Be careful to use proper grounding in the area where repairs are being performed.

(1) Ground the workbench

Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

(2) Ground yourself

Use an anti-static wrist strap to release any static electricity built up in your body.



(3) Handling the optical pickup

- In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
- Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

1.3 Important for laser products

1.CLASS 1 LASER PRODUCT


2.CAUTION : CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN.
AVOID EXPOSURE TO THE BEAM.

3.CAUTION : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.

4.CAUTION : The laser products uses visible and / or invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.

5.CAUTION : If safety switches malfunction, the laser is able to function.

6.CAUTION : Use of controls, adjustments or performance of procedures other than those specified here in may result in hazardous radiation exposure.

**CAUTION** Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

CAUTION : CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN.
AVOID EXPOSURE TO THE BEAM.

ADVARSEL : Synlig og usynlig laserstråling når maskinen er åben eller interlocken fejler. Undgå direkte eksponering til stråling.

VARNING : Synlig och osynlig laserstråling när den öppnas och spärren är urkopplad. Betrakta ej strålen.

VARO : Avattaessa ja suojalukitus ohitettuna tai viallisena olet alttiina näkyvälle ja näkymättömälle lasersäteilylle. Vältä säteen kohdistumista suoraan itseesi.

REPRODUCTION AND POSITION OF LABEL

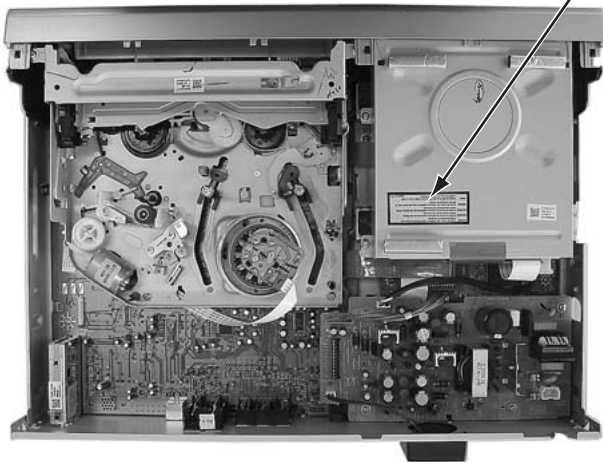
CAUTION CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN.
AVOID EXPOSURE TO THE BEAM.

ADVARSEL KLASSE 3B SYNLIG OG USYNLIG LASERSTRALING VED ABNING.
UNDGA UDSAETTELSE FOR STRALING.

ADVARSEL KLASSE 3B SYNLIG OG USYNLIG LASERSTRALING NAR DEKSEL APENS.
UNNGA EKSPONERING FOR STRALEN.

VARNING KLASSE 3B SYNLIG OCH OSYNLIG LASERSTRALNING NAR DENNA DEL AR
OPPNAD. STRALEN AR FARLIG.

VAROI KURSSI 3B NAKYVA JA NAKYMATON AVATTAESSA OLET ALTTIINA
LASERATEILYLLE. ALA KATSO SATEESEN.



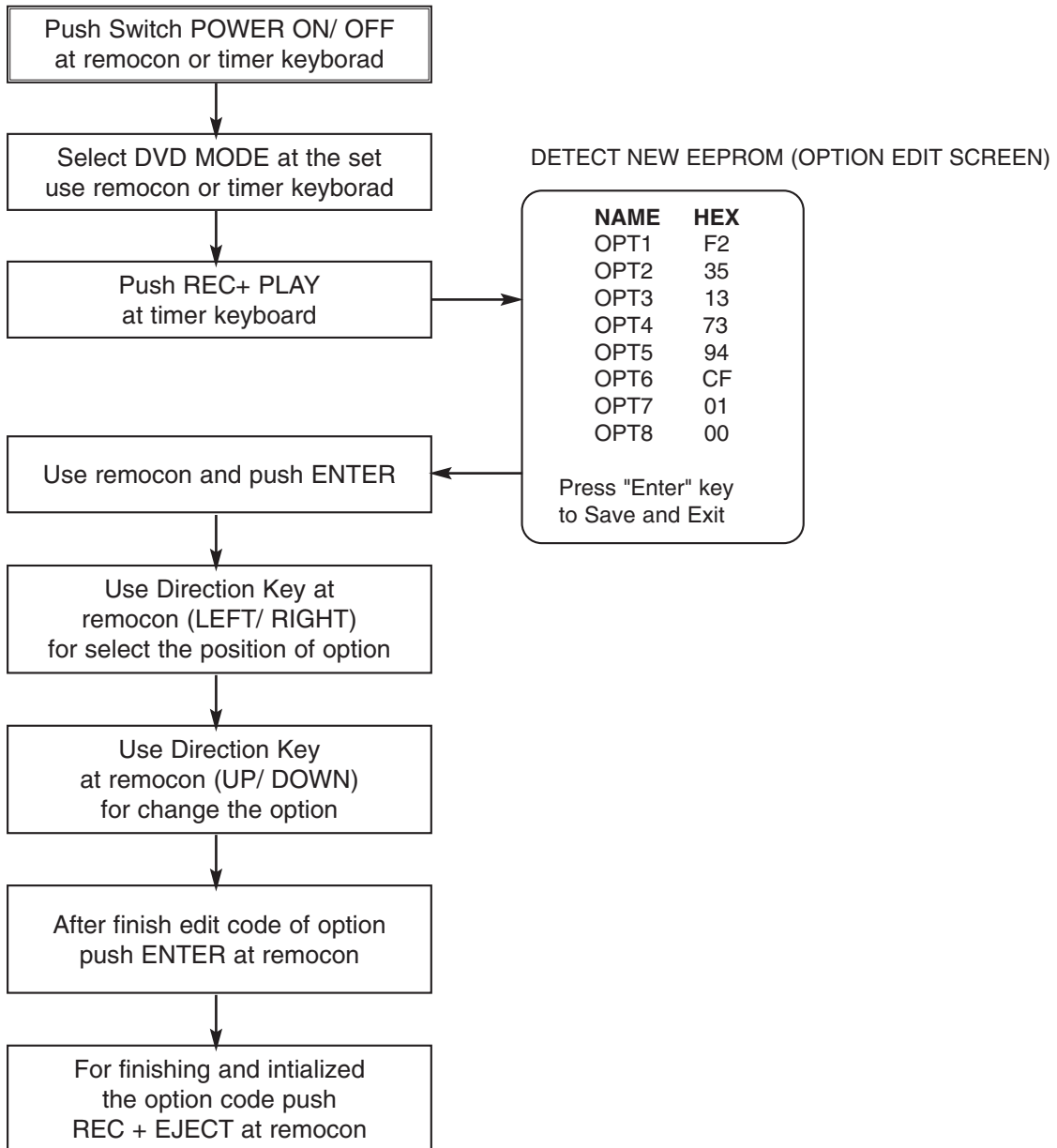
On DVD Drive unit

SECTION 2

SPECIFIC SERVICE INSTRUCTIONS

2.1 THE STEPS FOR CHANGE THE OPTION CODE

Note : This procedure must be done when IC1300(On digital Board) or Digital Boardassy



SECTION 3 DISASSEMBLY

3.1 POSITION DRAWING OF DECK MECHANISM PARTS (VCR)

Please refer to " HR-XVC16BUS,HR-XVC16BUC,HR-XVC17SUS,HR-XVC17SUC (issue number:YD093 2006/4) " about this section.

3.2 DISASSEMBLY AND ASSEMBLY OF DECK MECHANISM (VCR)

Please refer to " HR-XVC16BUS,HR-XVC16BUC,HR-XVC17SUS,HR-XVC17SUC (issue number:YD093 2006/4) " about this section.

3.3 Main body section

3.3.1 Remove the top cover (See figure 1)

- (1) Remove the four screws **A** attaching the top cover on both sides of the main body.
- (2) Remove the three screws **B** attaching the top cover on the back of the main body.
- (3) Raise the both sides and lower part of the rear of the top cover, with opening them slightly in an outward direction. And the top cover will be removed.



Fig.1

3.3.2 Remove the front panel assembly (See figure 2, figure 3)

- Prior to performing the following procedure, remove the top cover.
- There is no need to remove the DVD drive unit and VCR mechanism unit.
- (1) Hooks **a** and **b** are removed respectively, and the front panel assembly is removed.

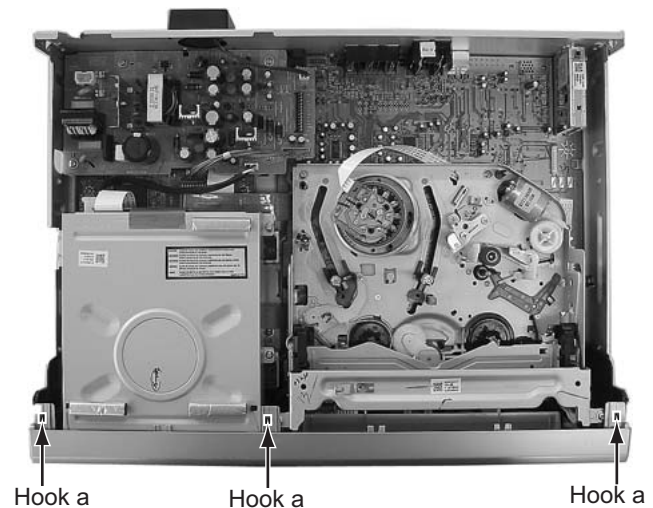


Fig.2

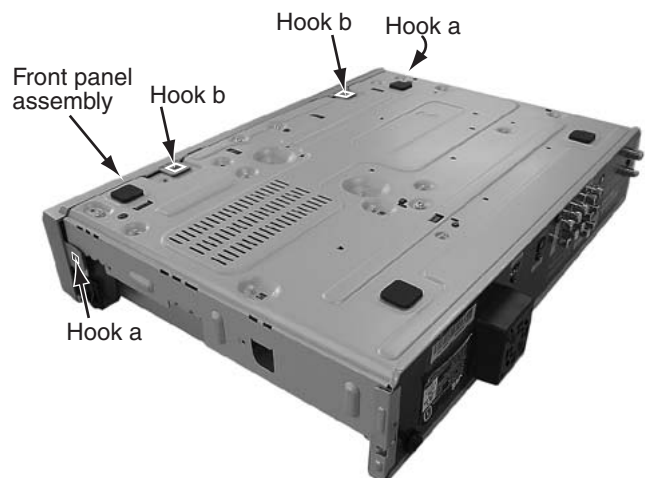
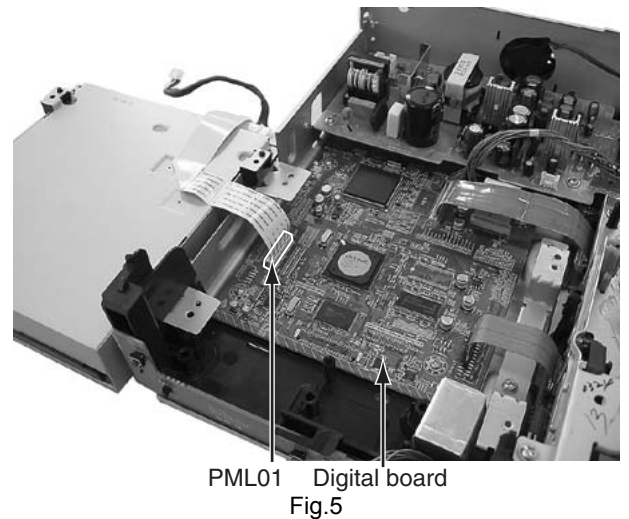


Fig.3

3.3.3 Remove the DVD drive unit (See figure 4, figure 5)

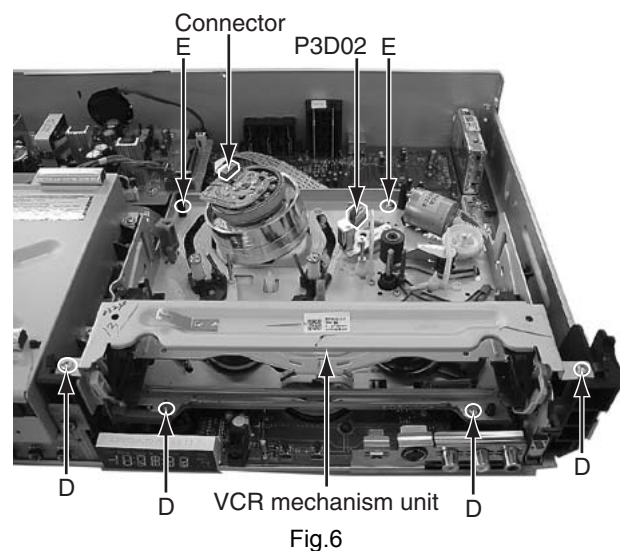
- Prior to performing the following procedure, remove the top cover, front panel assembly.
 - (1) Remove the four screws **C** attaching the DVD drive unit.
 - (2) Disconnect the card wire from connector **PML01** on the digital board.
 - (3) Disconnect the socket wire from connector **PSL01** on the power board.



3.3.4 Remove the VCR mechanism unit (See figure 6)

- Prior to performing the following procedure, remove the top cover, front panel assembly.
 - (1) Remove the four screws **D** attaching the VCR mechanism unit.
 - (2) Remove the two screws **E** attaching the VCR mechanism unit.
 - (3) Disconnect the card wire from connector on the drum unit.
 - (4) Disconnect the card wire from connector **P3D02** on the main board.
 - (5) It lifts slowly and it removes.

*Please press VCR mechanism unit against main board firmly about assembly side.



3.3.5 Remove the power board (See figure 7)

- Prior to performing the following procedure, remove the top cover.
- (1) Remove the four screws **F** attaching the power board.
- (2) Disconnect the socket wire from connector [PW101](#), [PSL01](#), [PSM01](#), [PSF01](#) on the power board.
- (3) The power board is lifted to the vertical direction and it removes.

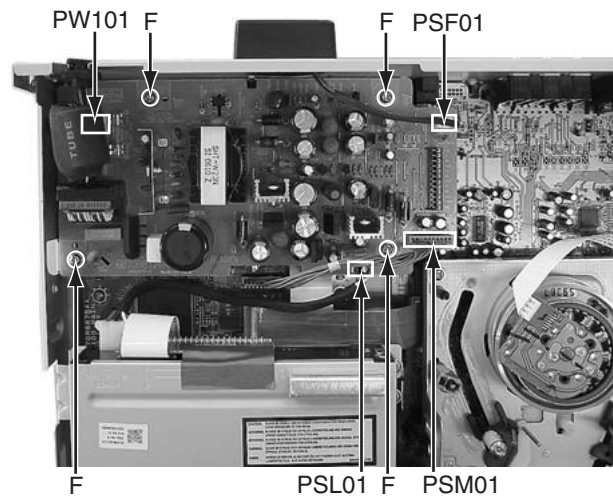


Fig.7

3.3.6 Remove the digital board and main board (See figure 8, figure 9)

- Prior to performing the following procedure, remove the top cover, front panel assembly, DVD drive unit, VCR mechanism unit, power board
- (1) Remove the four screws **G** attaching the digital board.
- (2) Disconnect the card wire from connector [PMV01](#), [PMV02](#), [PMH01](#) on the digital board.
- (3) The digital board is lifted to the vertical direction and it removes.
- (4) Remove the two screws **H** attaching the main board.
- (5) Remove the five screws **I** attaching the rear panel with main board.
- (6) Disconnect the socket wire from connector [PV601](#) on the main board.

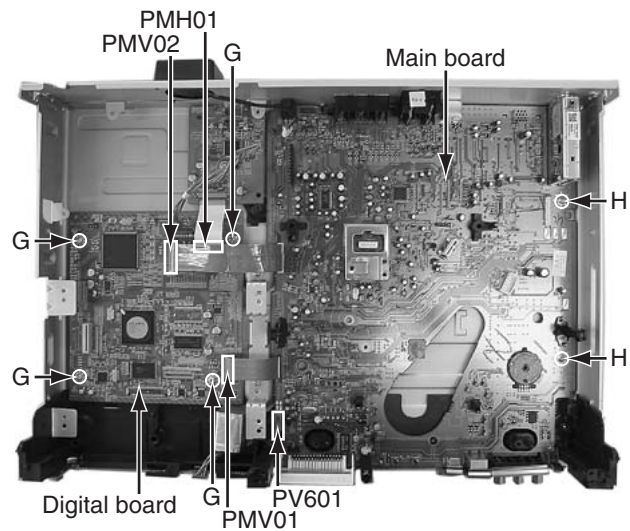


Fig.8



Fig.9

3.4 DVD Mechanism section

3.4.1 Remove the top cover and tray (See figure 1, figure 2, figure 3, figure 4)

- (1) Remove the four screws **A** attaching the top cover.
- (2) The slide gear is moved in the direction of the arrow. Then, because the tray does eject a little, it draws it out.
- (3) It pushes in the direction of front while lifting part **a** of the tray by one.

* Please confirm the thing that the slide gear comes to the right side without fail when you install the tray.



Fig.1

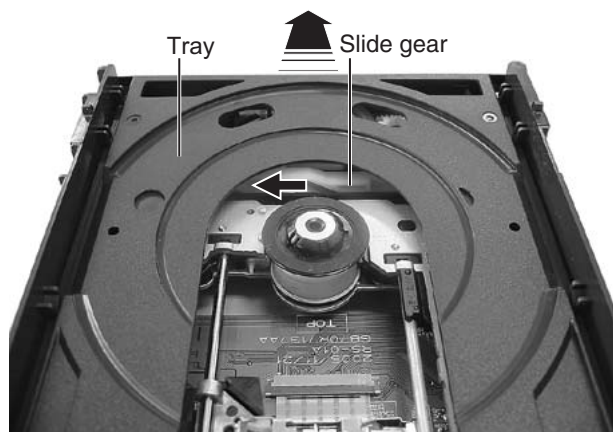


Fig.2

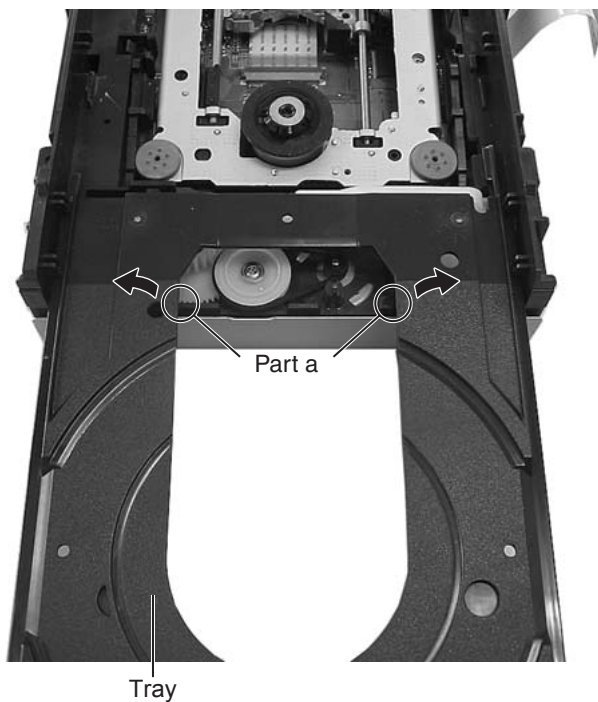


Fig.3

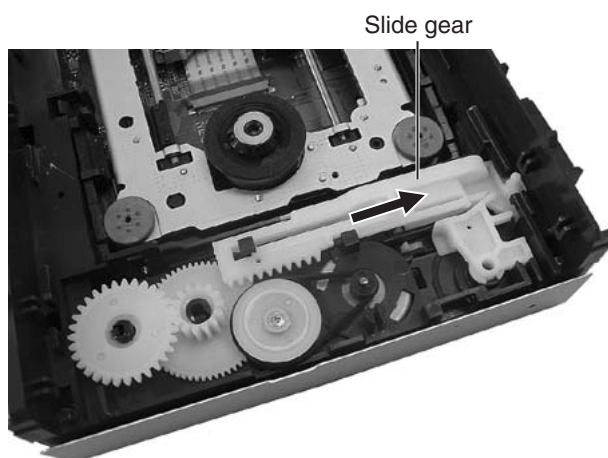


Fig.4

SECTION 4 ADJUSTMENT

4.1 DECK MECHANISM ADJUSTMENT (VCR)

Please refer to "HR-XVC16BUS,HR-XVC16BUC,HR-XVC17SUS,HR-XVC17SUC (issue number:YD093 2006/4)" about this section.

4.2 PROTECTION, MAINTENANCE AND CHECK OF VIDEO FUNCTION (VCR)

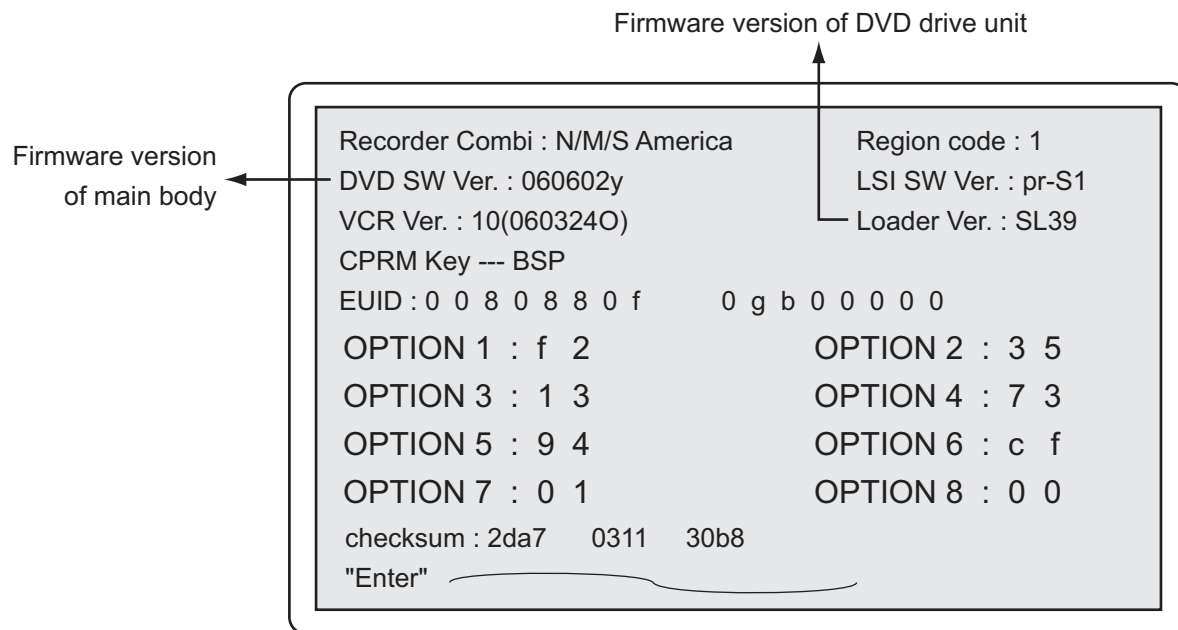
Please refer to "HR-XVC16BUS,HR-XVC16BUC,HR-XVC17SUS,HR-XVC17SUC (issue number:YD093 2006/4)" about this section.

4.3 ELECTRICAL ADJUSTMENT PROCEDURES (VCR)

Please refer to "HR-XVC16BUS,HR-XVC16BUC,HR-XVC17SUS,HR-XVC17SUC (issue number:YD093 2006/4)" about this section.

4.4 The version of the firmware is confirmed

- (1) The power supply is turned on.
- (2) It keeps pushing the "PLAY" button of the main body and the "REC" button at the same time for five seconds or more.
- (3) Then, it is displayed on the screen as shown in the figure below.



- (4) When the display is released, it keeps pushing the "PLAY" button and the "REC" button at the same time again for five seconds or more.

4.5 Updating the firmware of the main body

- Firmware update disc supports CD-R media.
- When firmware update is necessary, information is available from the web site of DIGITAL VIDEO STORAGE, CS group.

4.5.1 Creating an update disc

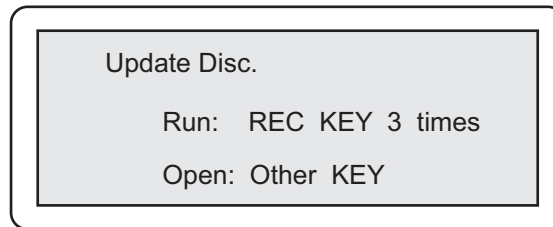
Please check the details of the update disc creation method with JS-NET.

- (1) Download the update file from JS-NET.
 - (2) Write the update file into CD-R. Pay attention in the following points when writing the update disc.
- Make sure to write in "Disc at Once".
 - Set the file compatibility to "JOLIET format".

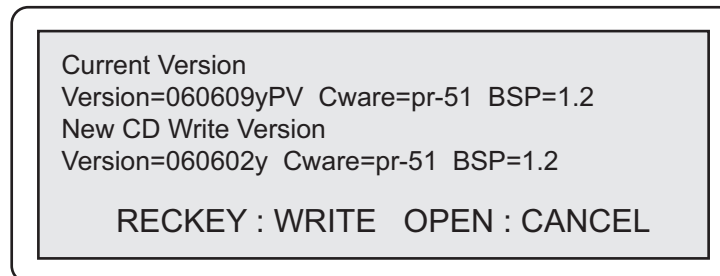
If the writing method is not correct, the update results in an error.

4.5.2 Update procedure

- (1) The power supply is turned on and the update disc is inserted.
- (2) When the reading operation of the disc ends, Then, it is displayed on the screen as shown in the figure below.



- (3) The "REC" button of the main body is pushed three times.
 - The tray is done when other buttons are pushed here and eject is done.
- (4) It changes into the screen like the figure below, and a current version and the version of the firmware update disc are displayed. The update starts when "REC" button of remote control or the main body is pushed.
 - "OPEN/CLOSE" button is canceled here when pushing, the tray is done, and eject is done.



- (5) When the screen display becomes "100 percent done", it is an end.
Because eject is done, the tray automatically removes the disc, and turns off the power supply.
- (6) The version of the firmware is confirmed.

4.6 Updating the firmware of the DVD drive unit

- Firmware update disc supports CD-R media.
- When firmware update is necessary, information is available from the web site of DIGITAL VIDEO STORAGE, CS group.

4.6.1 Creating an update disc

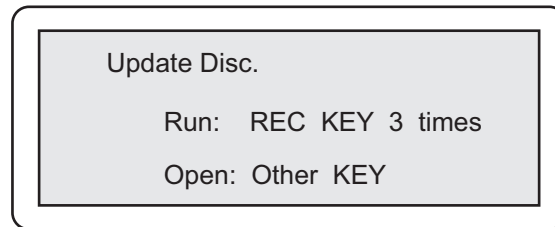
Please check the details of the update disc creation method with JS-NET.

- (1) Download the update file from JS-NET.
- (2) Write the update file into CD-R. Pay attention in the following points when writing the update disc.
 - Make sure to write in "Disc at Once".
 - Set the file compatibility to "JOLIET format".

If the writing method is not correct, the update results in an error.

4.6.2 Update procedure

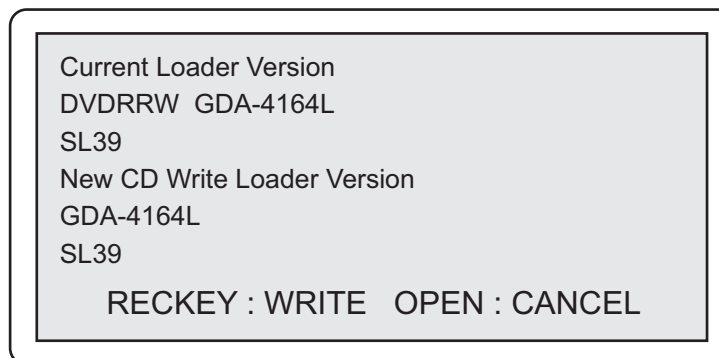
- (1) The power supply is turned on and the update disc is inserted.
- (2) When the reading operation of the disc ends, Then, it is displayed on the screen as shown in the figure below.



- (3) The "REC" button of the main body is pushed three times.
 - The "REC" button of the main body is pushed three times.
- (4) The tray is automatically eject. The update disc is removed.
- (5) It changes into the screen like the figure below, and a current version and the version of the firmware update disc are displayed.

The update starts when "REC" button of remote control or the main body is pushed.

 - "OPEN/CLOSE" button is canceled here when pushing, the tray is done, and eject is done.



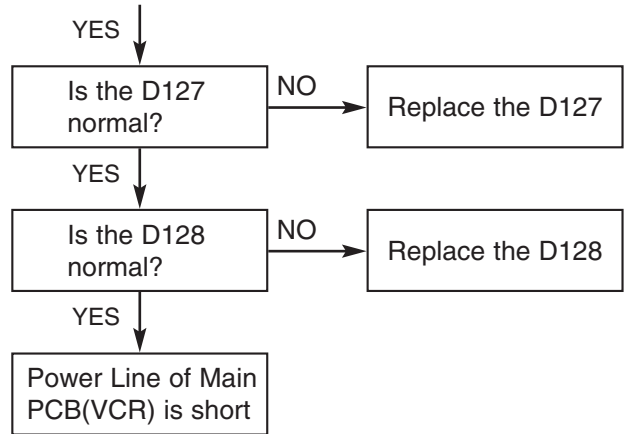
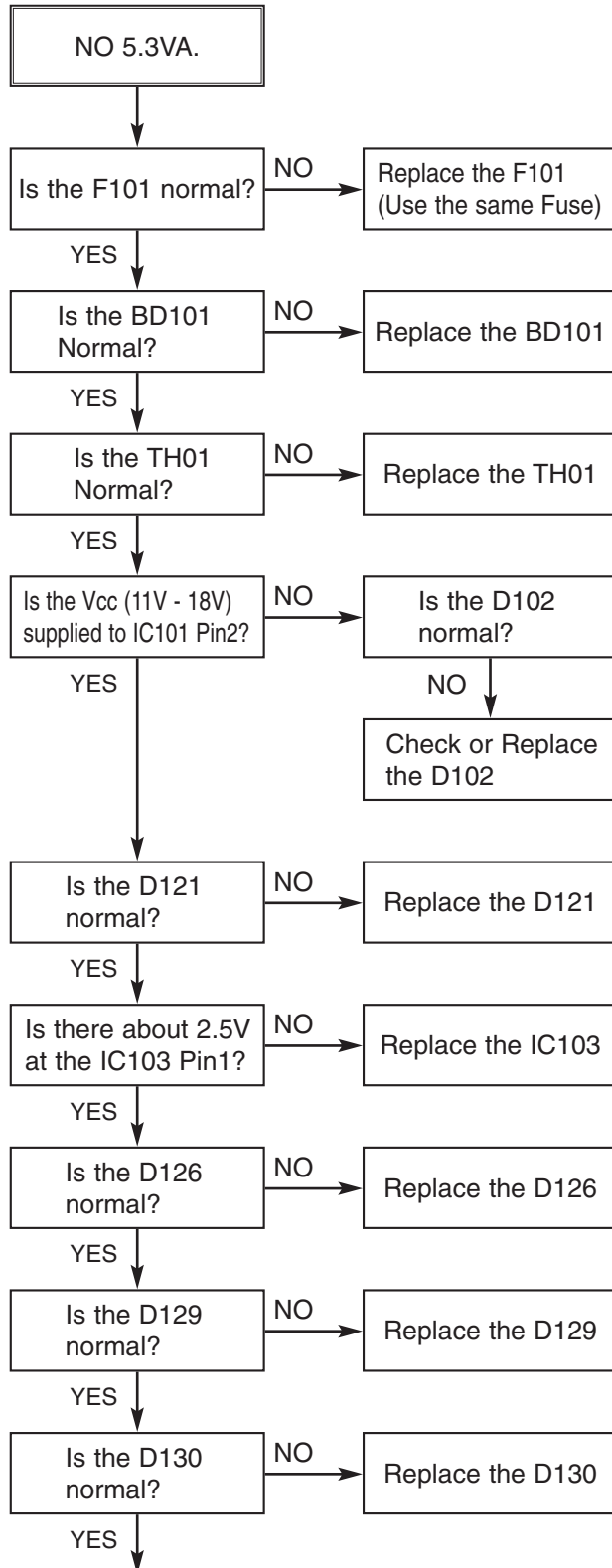
- (6) When the screen display becomes "100 percent done", it is an end. The power supply is automatically turned off.
- (7) The version of the firmware is confirmed.

SECTION 5 TROUBLESHOOTING

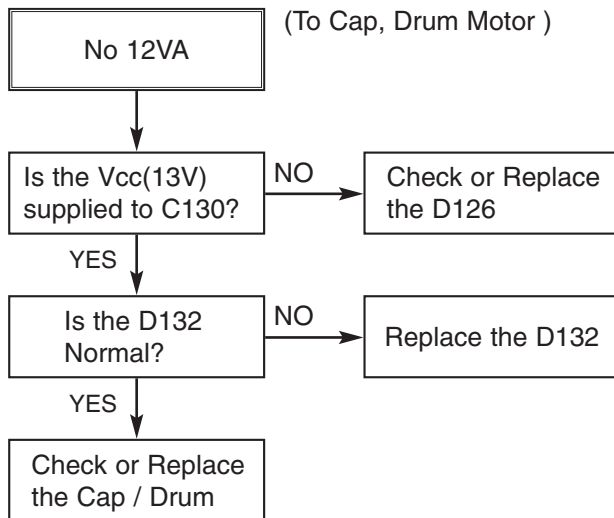
5.1 VCR ELECTRICAL TROUBLESHOOTING GUIDE

5.1.1 Power(SMPS) CIRCUIT

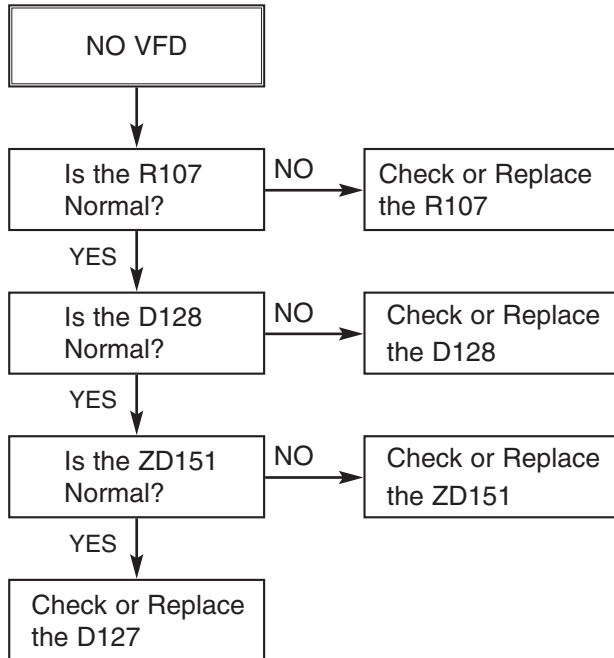
(1) NO 5.3VA



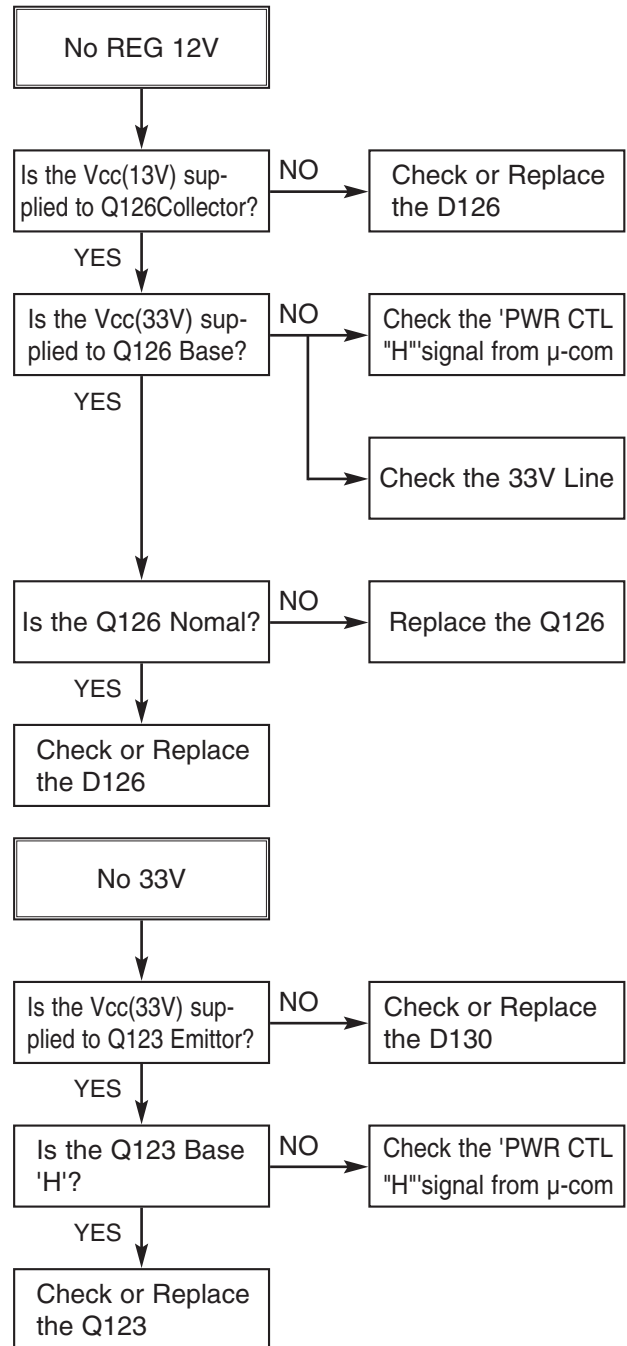
(2) NO 12VA



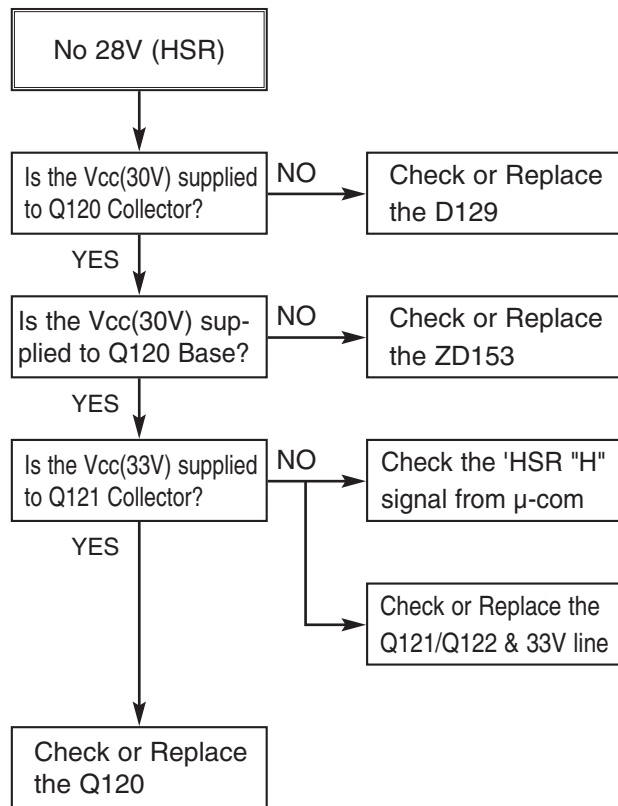
(3) NO VFD



(4) NO REG12

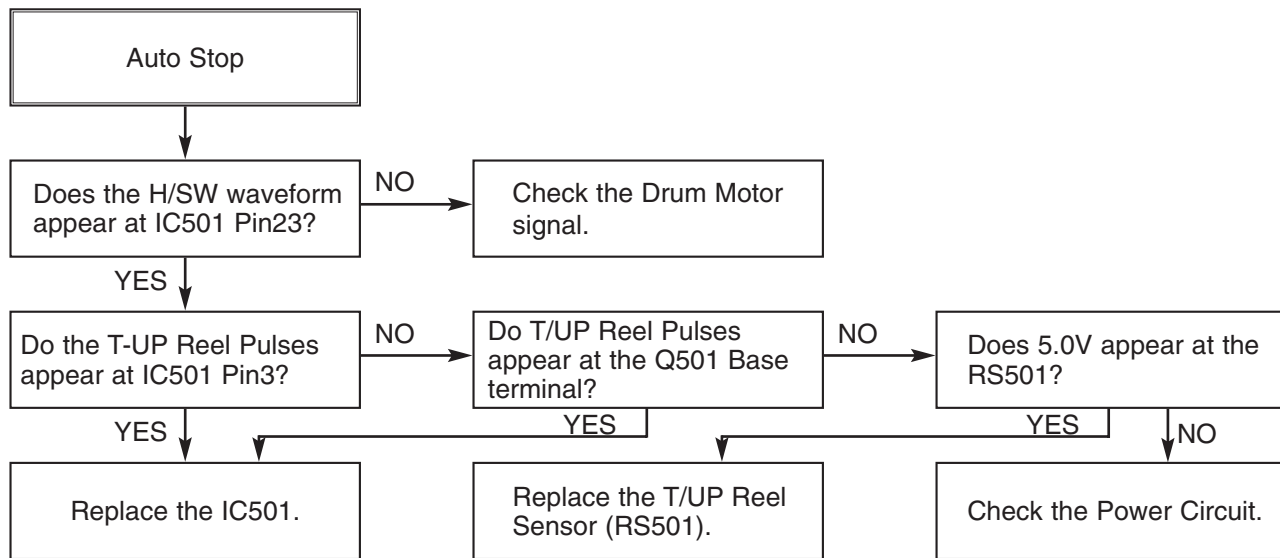


(5) NO 28V(HSR)



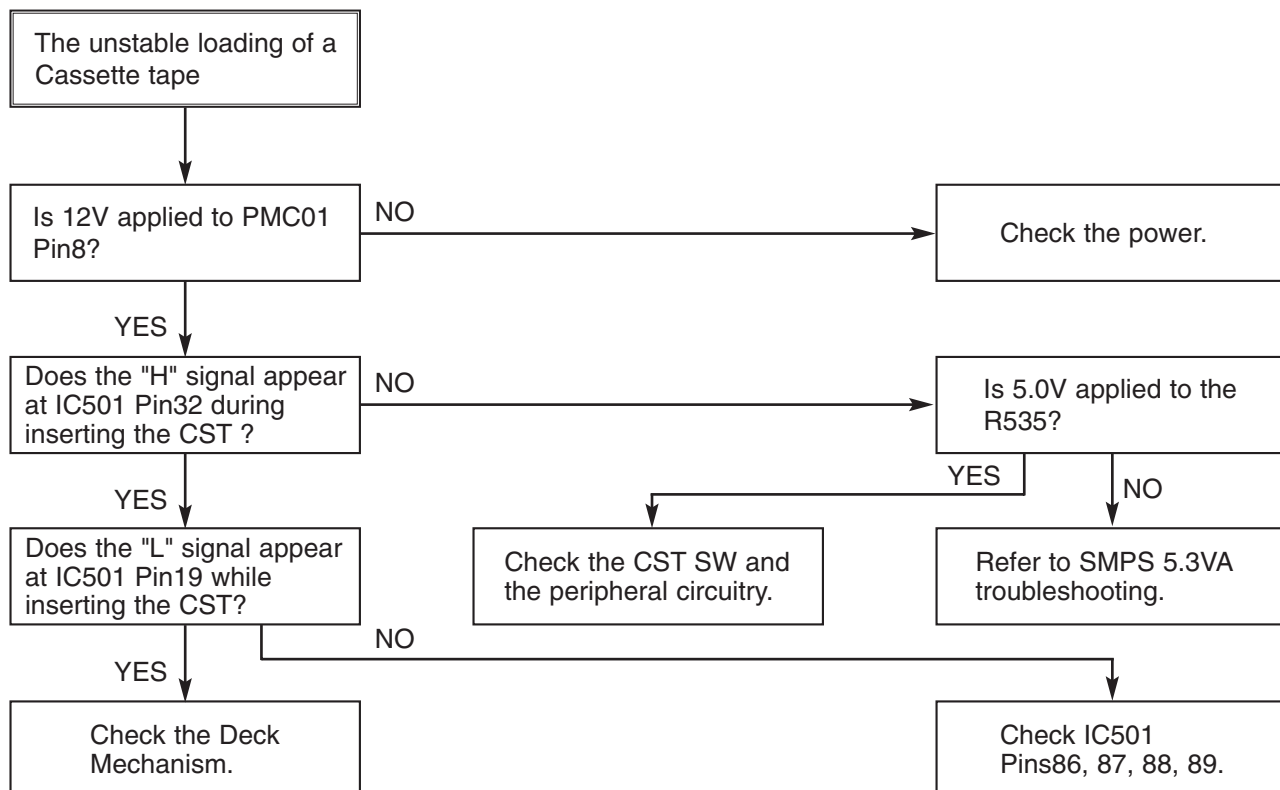
5.1.2 SYSTEM/KEY CIRCUIT

(1) AUTO STOP



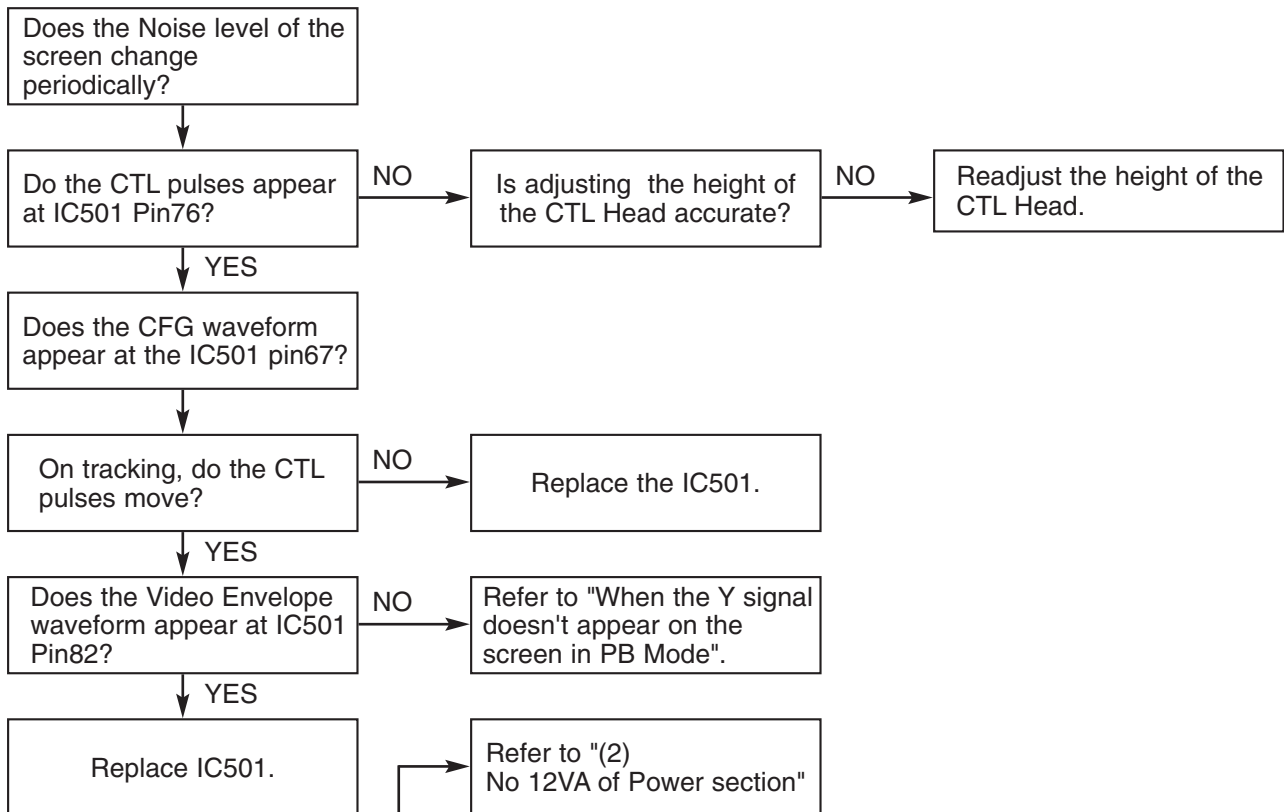
Note : Auto stop can occur because Grease or Oil has dried up

(2) The unstable loading of a Cassette tape

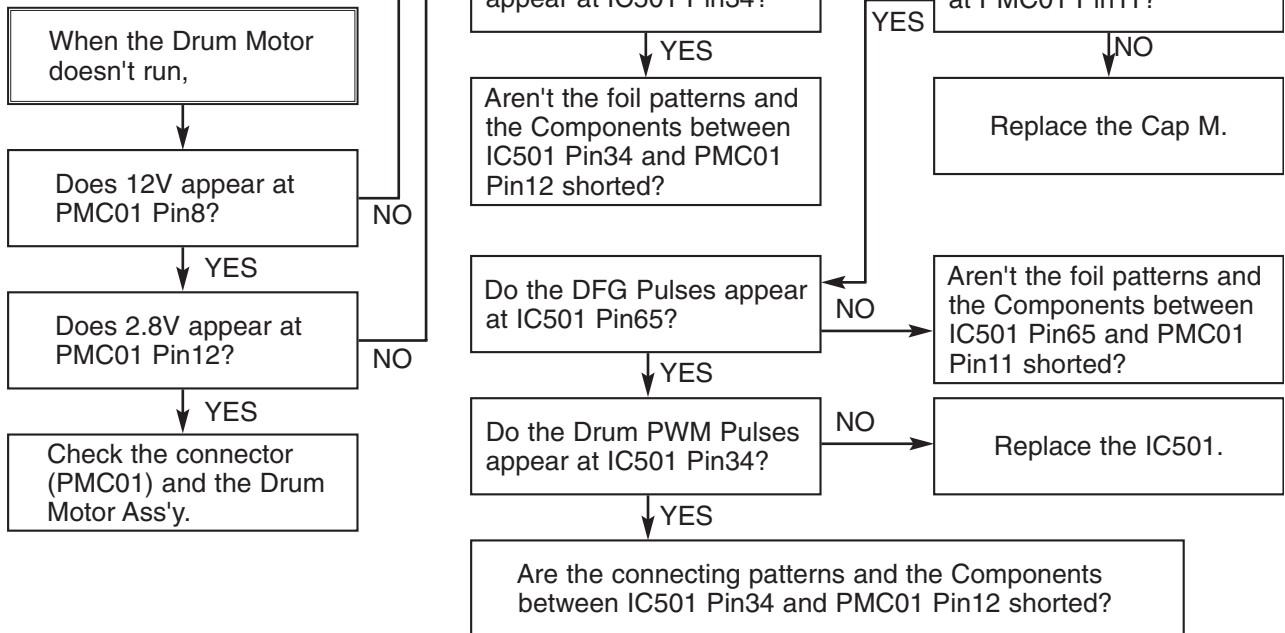


5.1.3 SERVO CIRCUIT

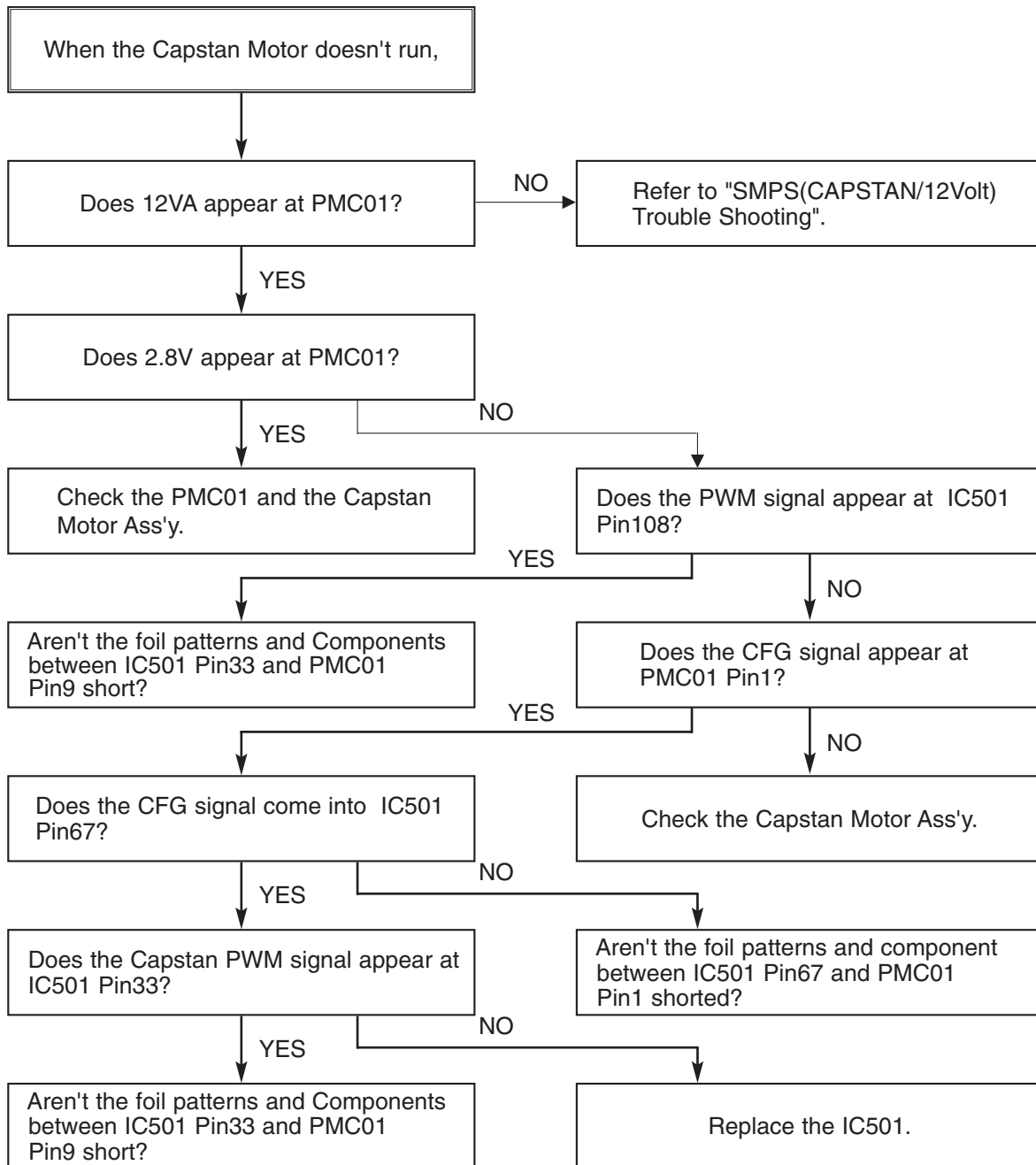
(1) Unstable Video in PB MODE



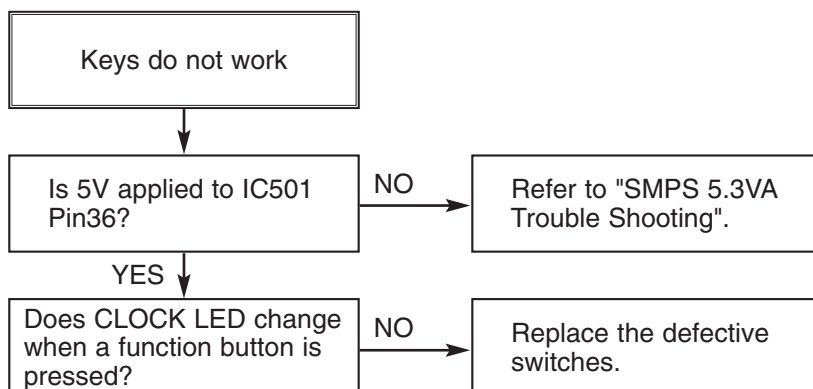
(2) When the Drum Motor doesn't run.



(3) When the Capstan Motor doesn't run,

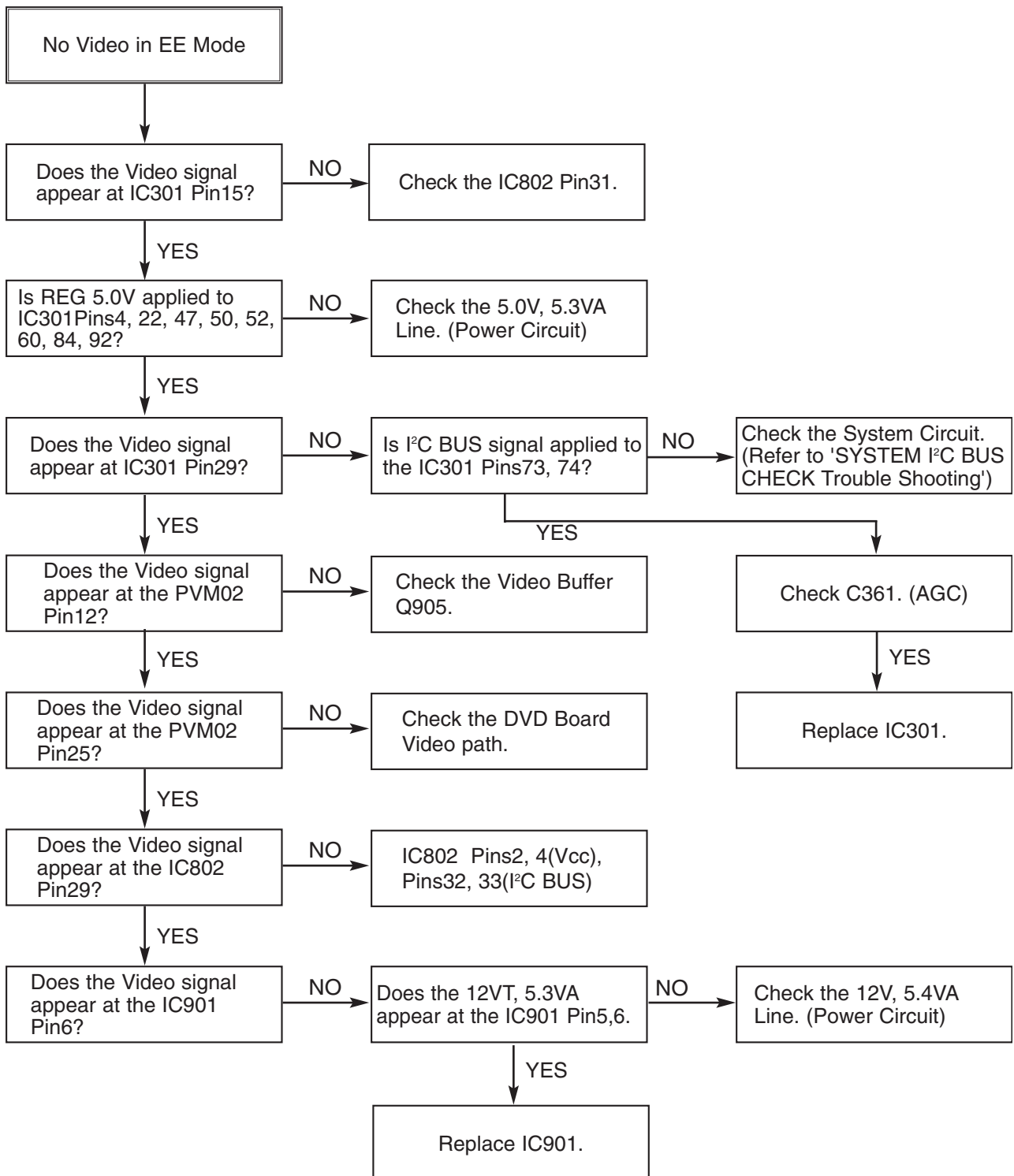


(4) Keys do not work

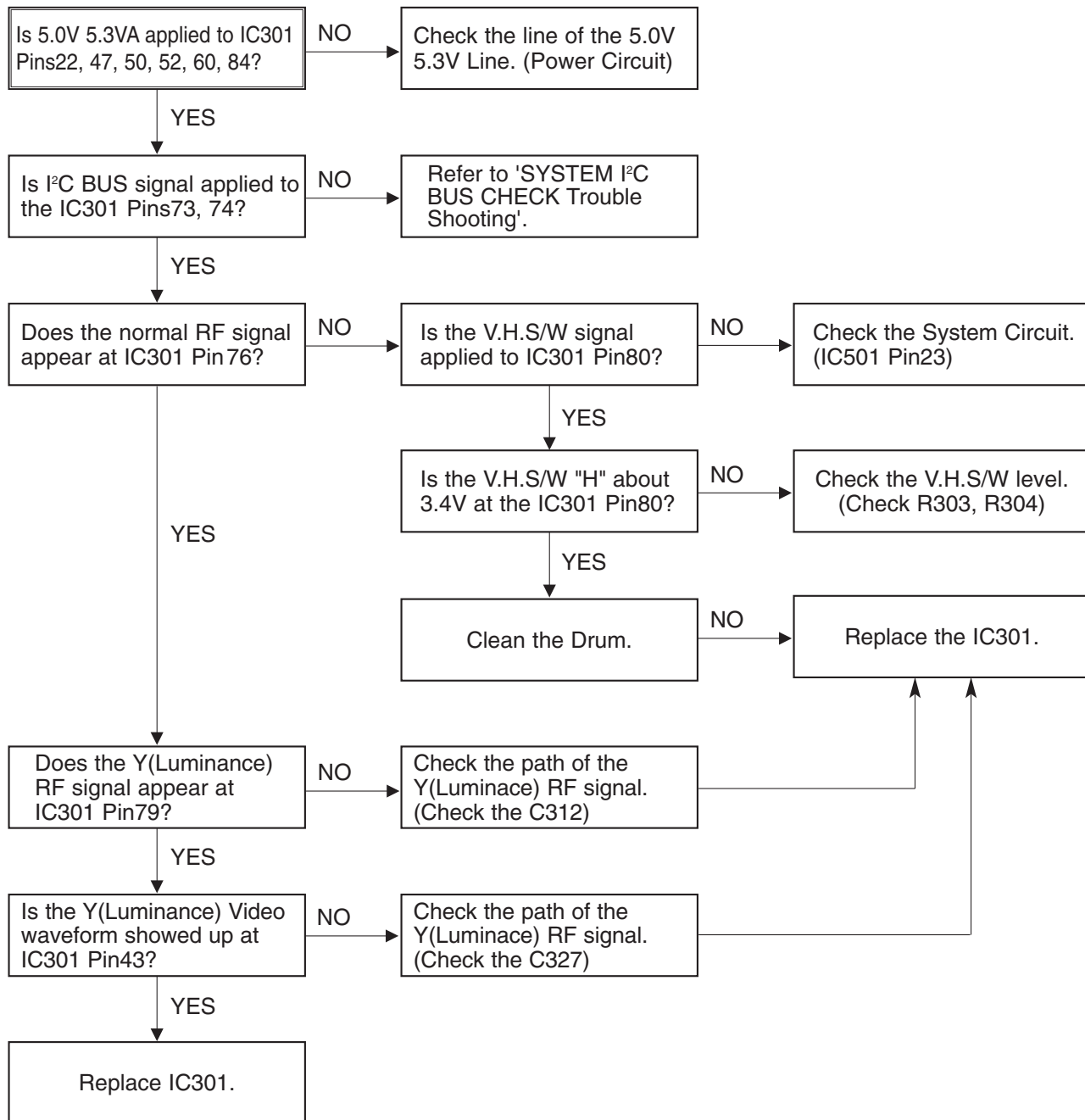


5.1.4 Y/C CIRCUIT

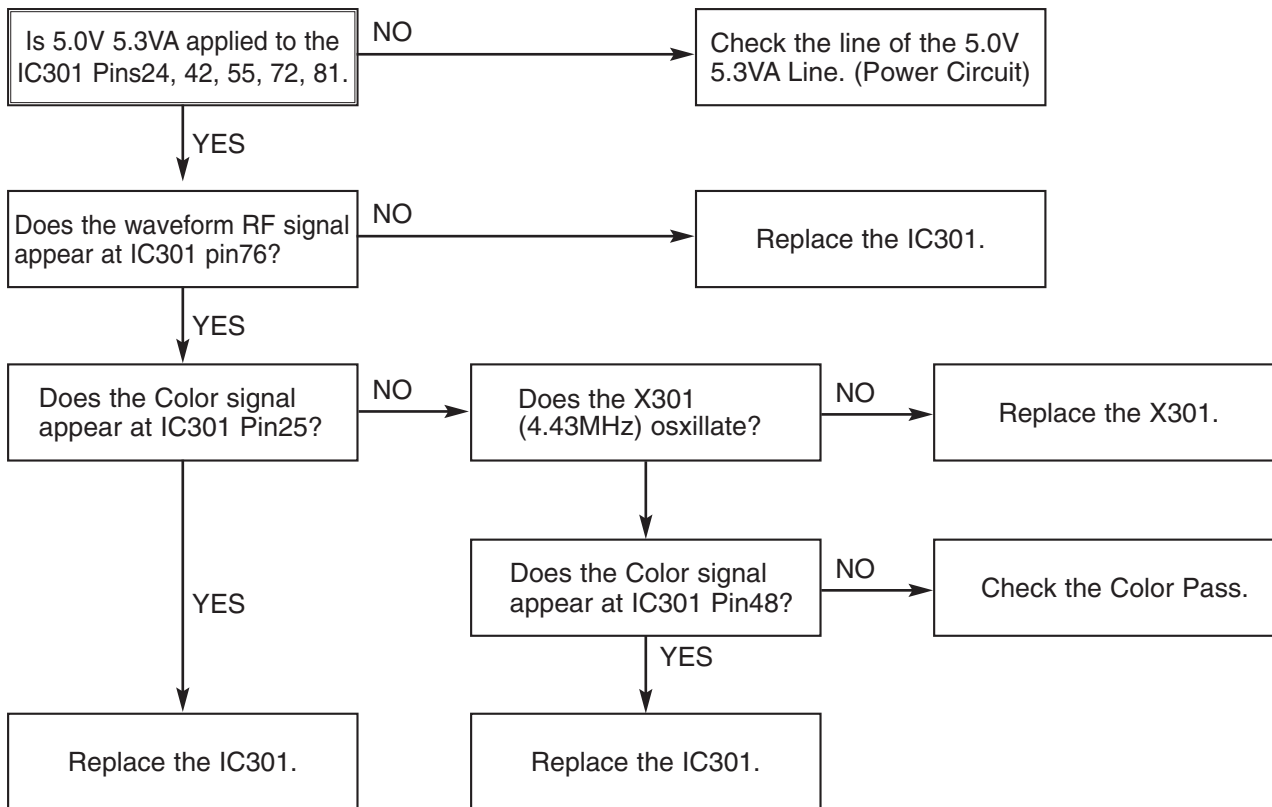
(1) No Video in EE Mode,



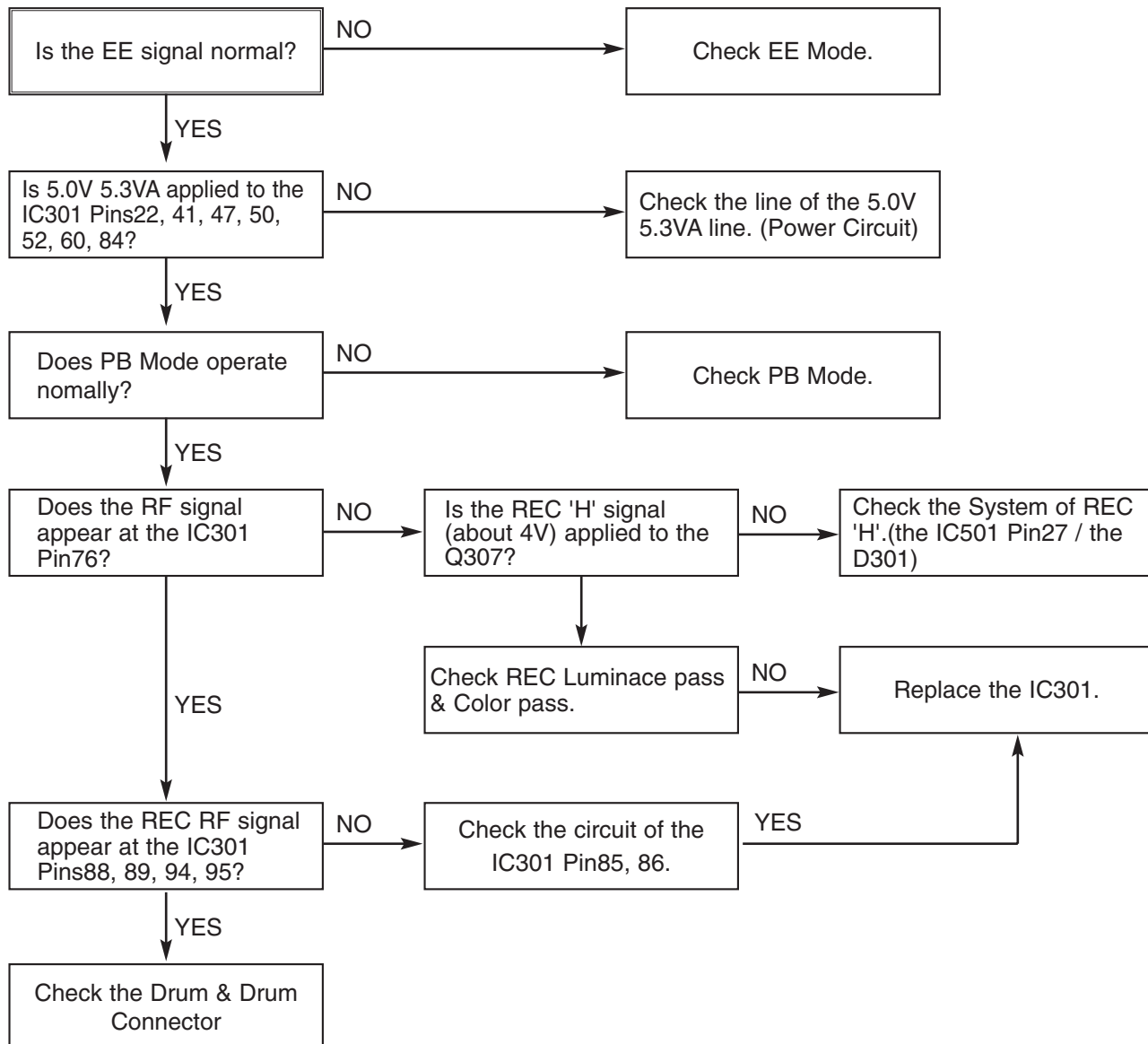
(2) When the Y(Luminance) signal doesn't appear on the screen in PB Mode,



(3) When the C(Color) signal doesn't appear on the screen in PB Mode,

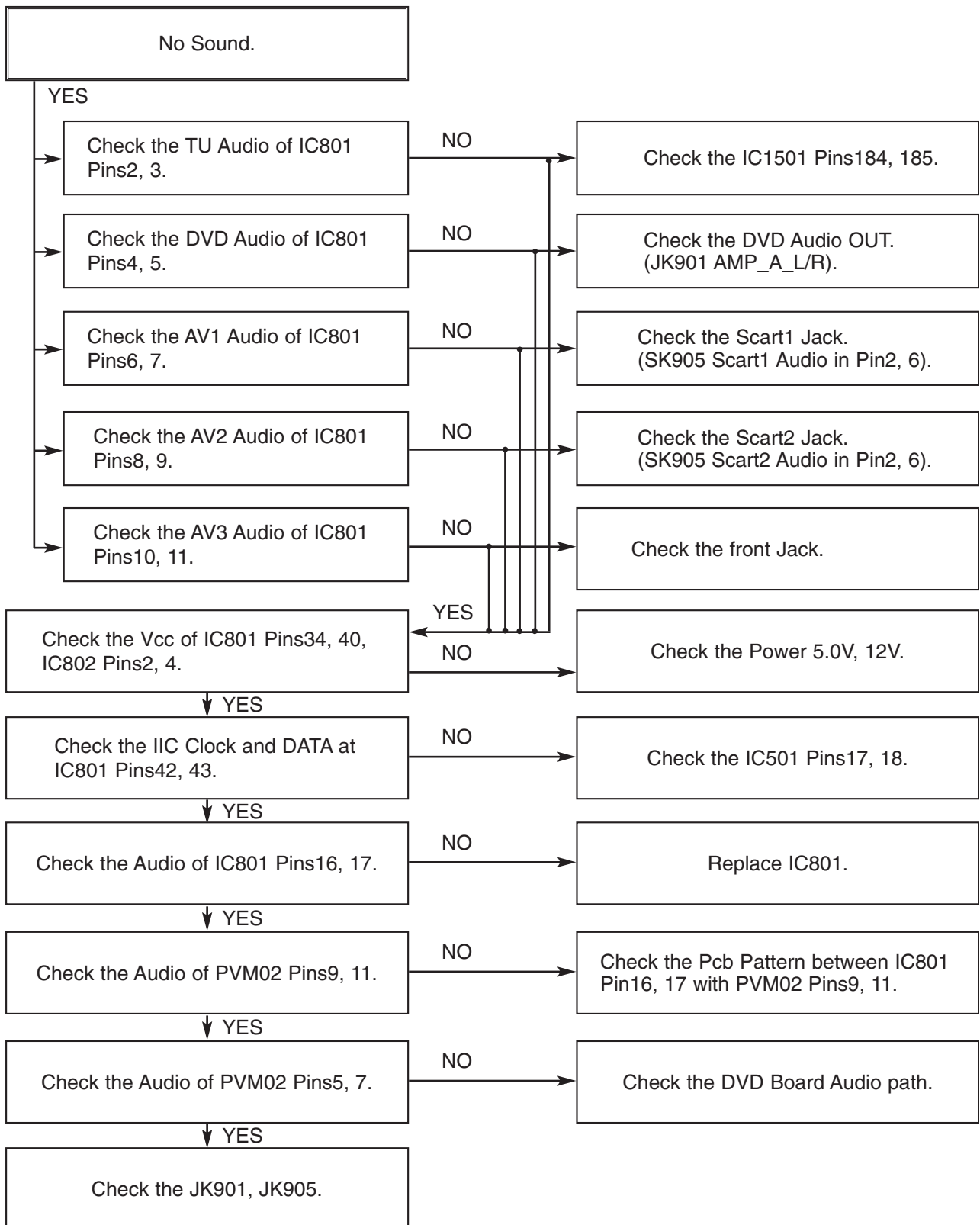


(4) When the Video signal doesn't appear on the screen in REC Mode,

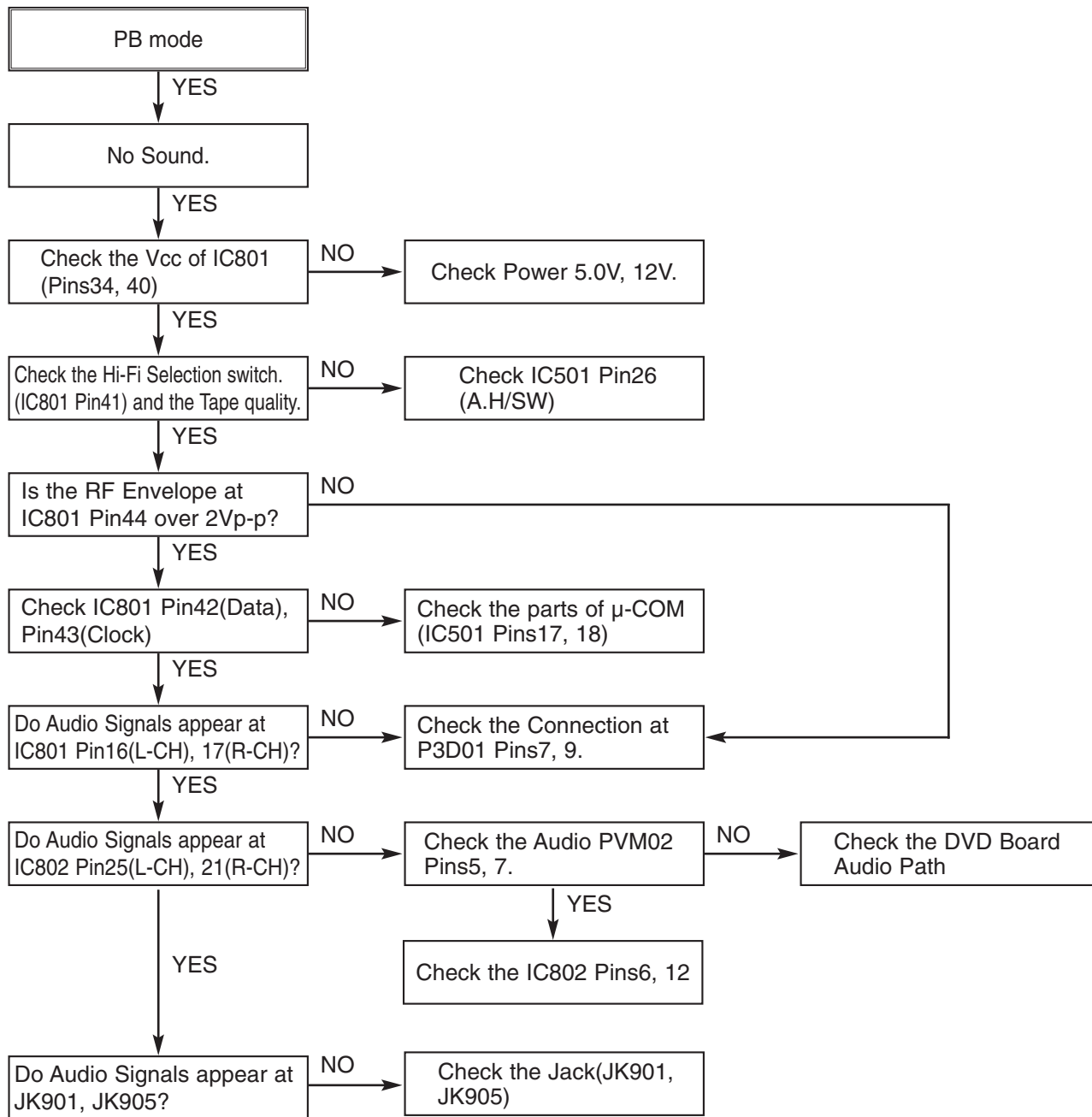


5.1.5 Hi-Fi CIRCUIT

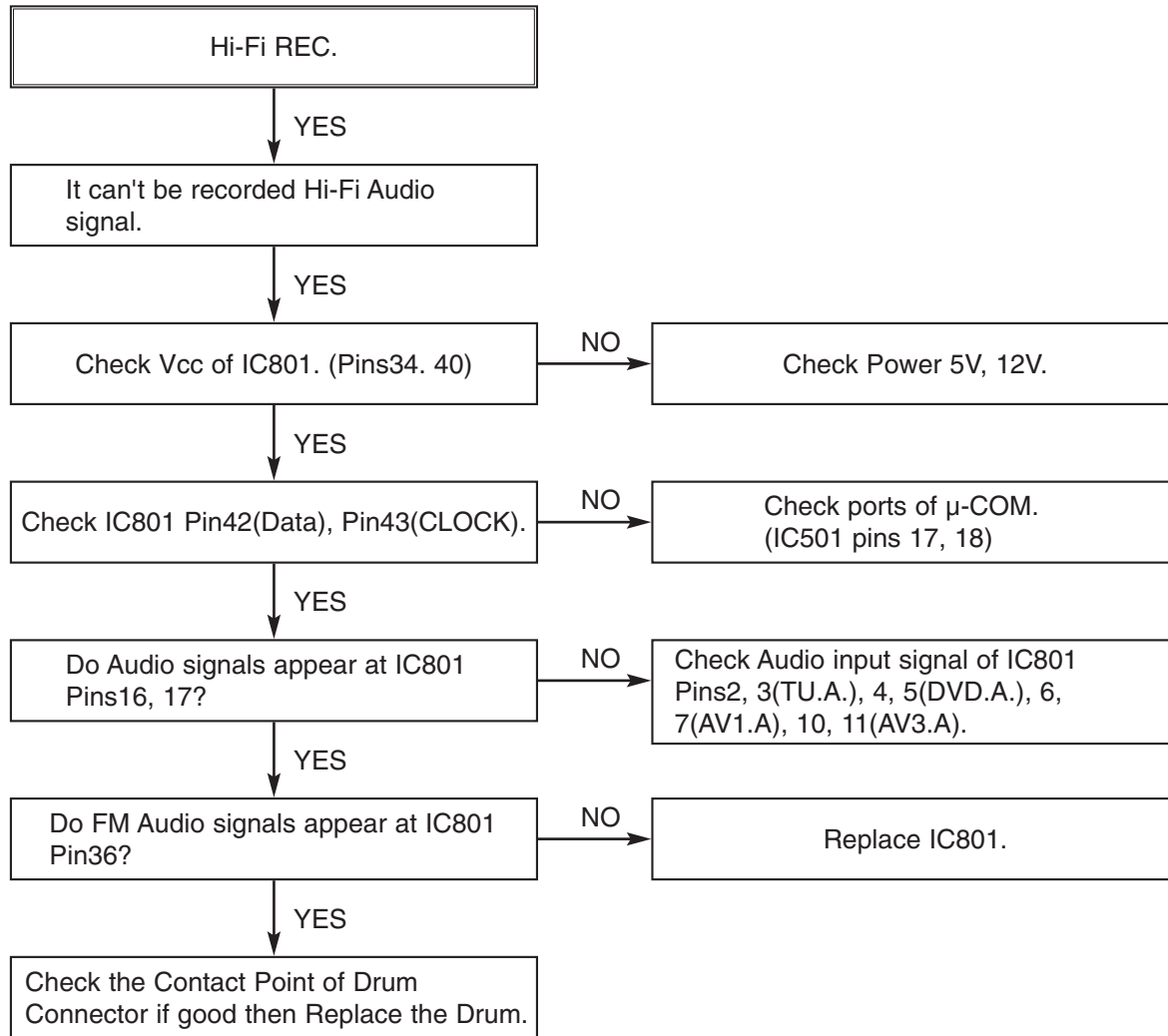
(1) No Sound(EE Mode)



(2) Hi-Fi Playback

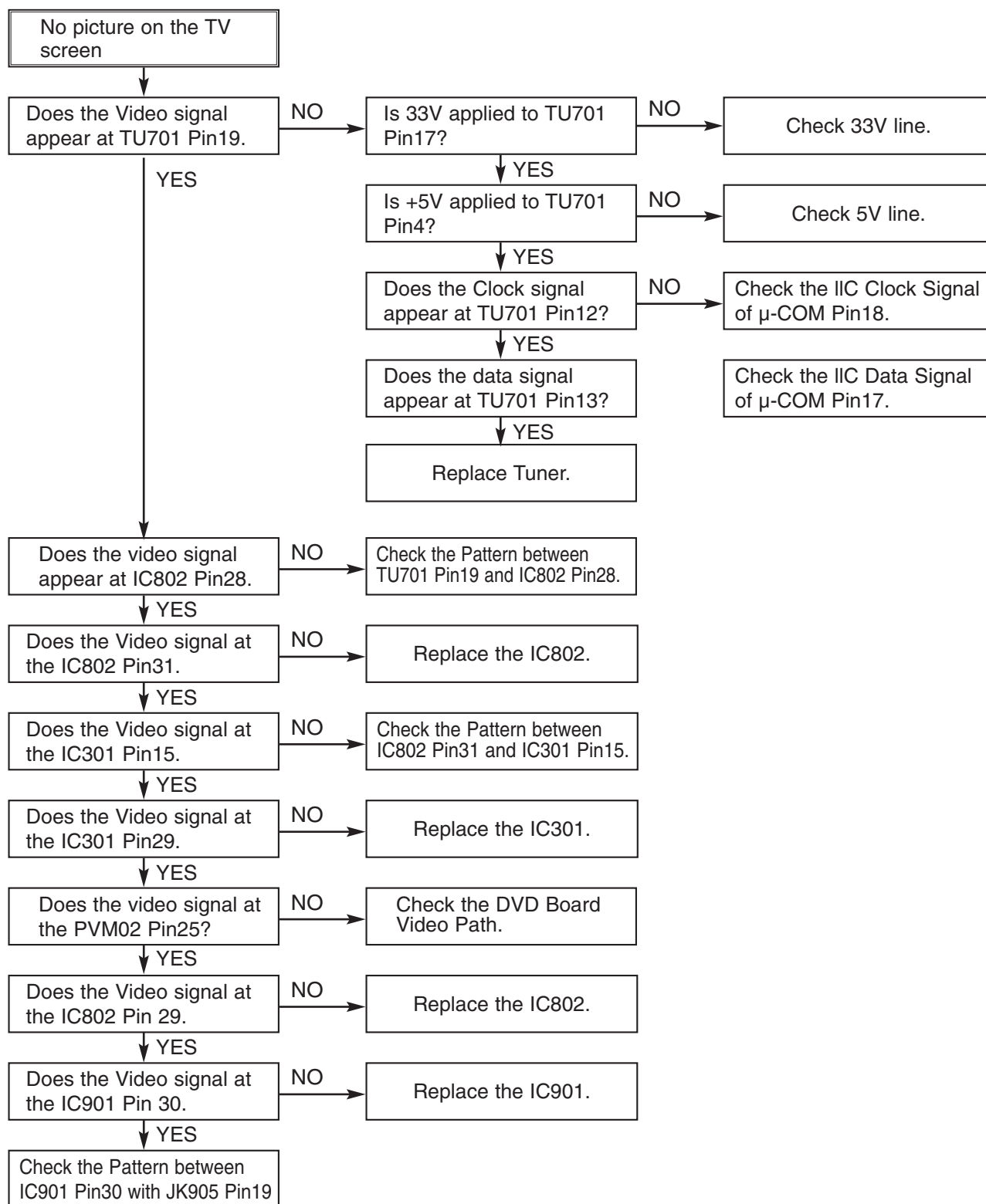


(3)Hi-Fi Recording

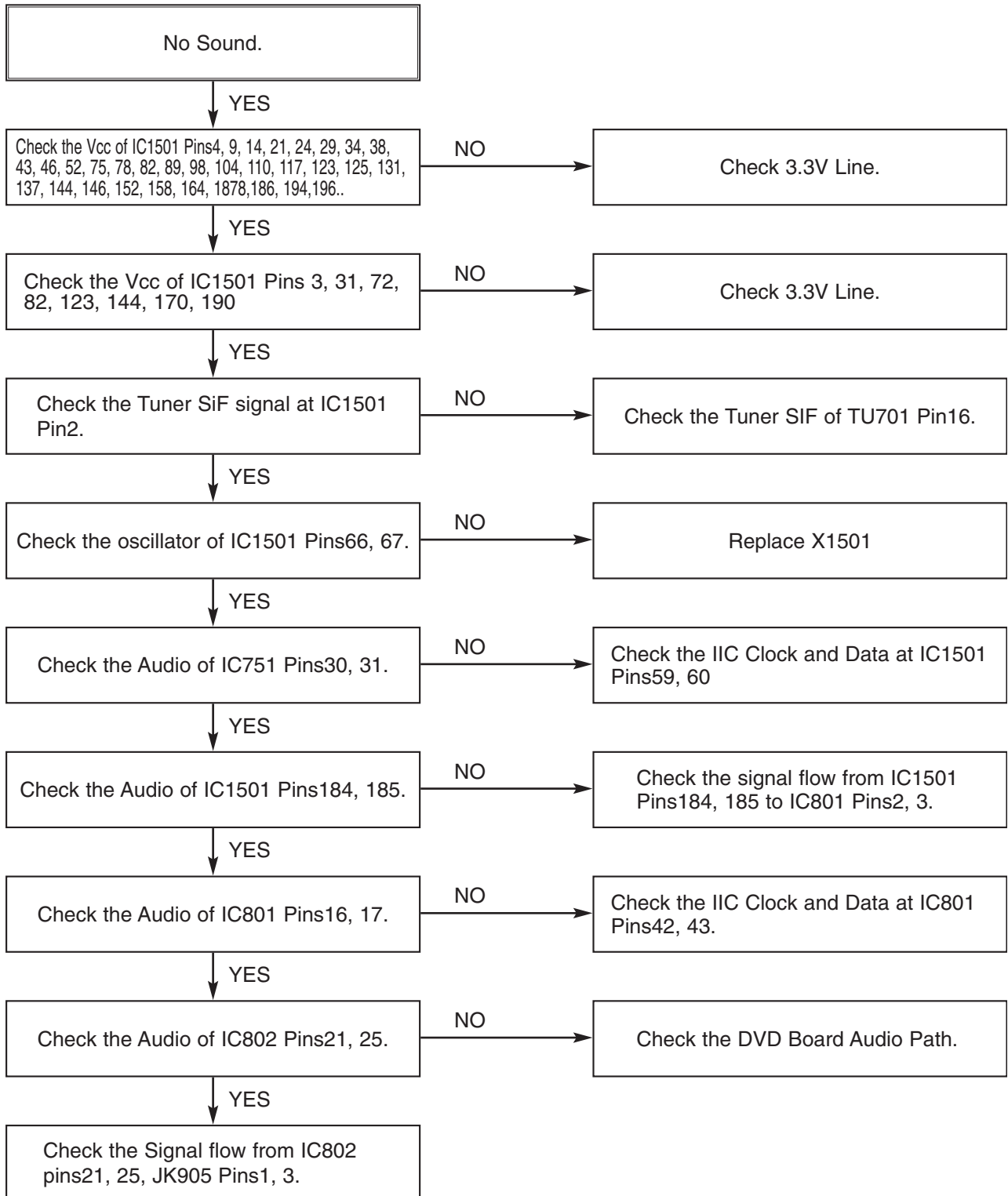


5.1.6 Tuner/IF CIRCUIT

(1) No Picture on the TV screen



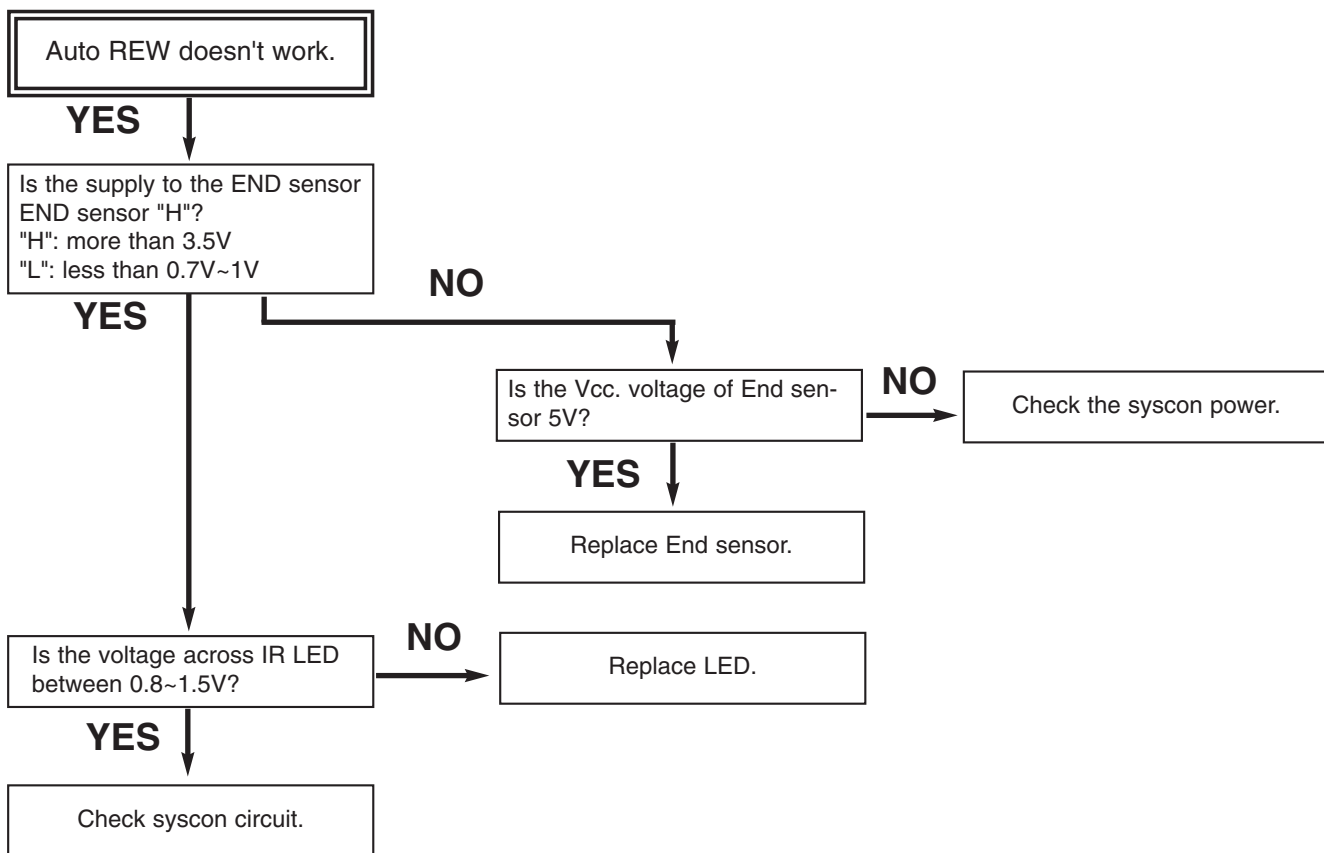
(2) No Sound



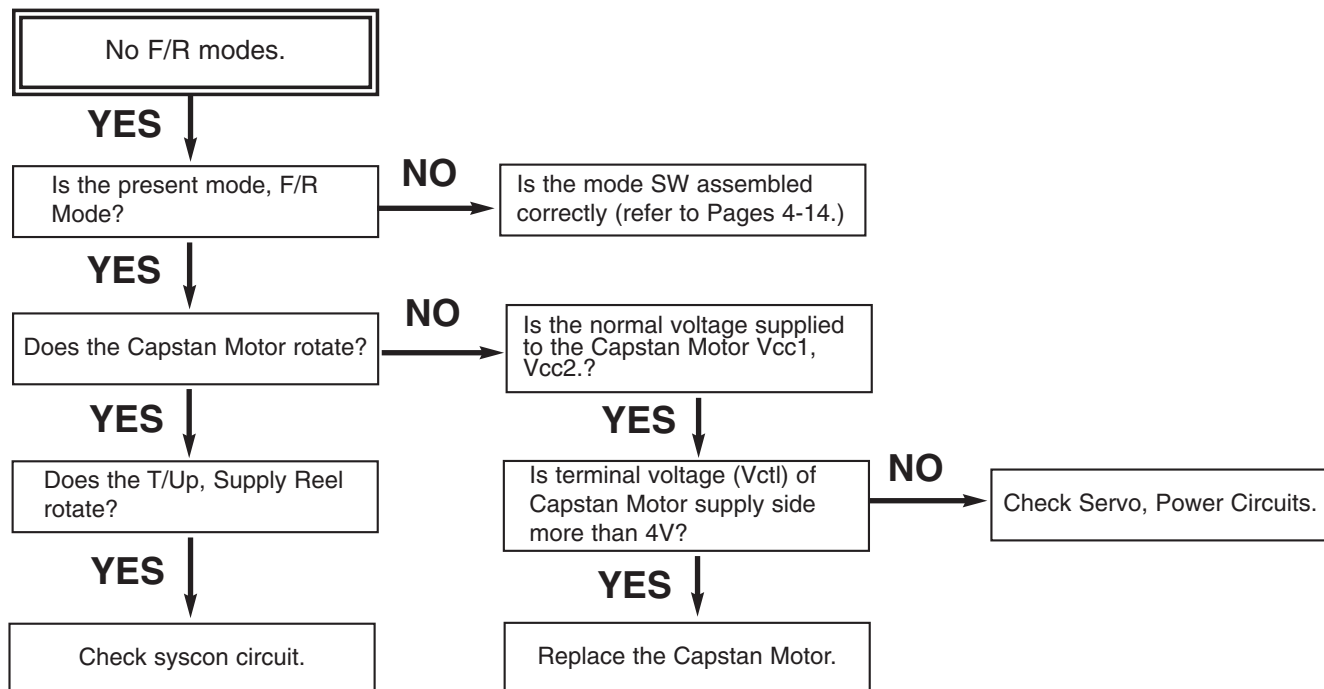
5.2 MECHANISM TROUBLESHOOTING GUIDE(VCR PART)

5.2.1 Deck Mechanism

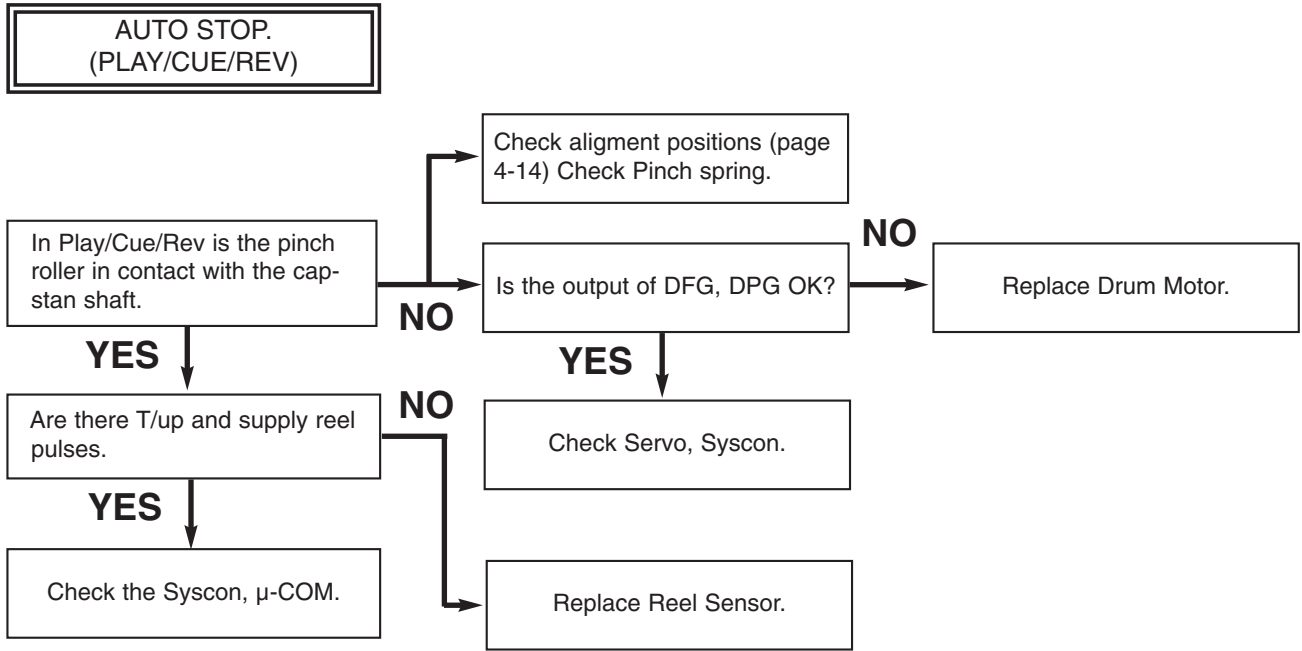
A.



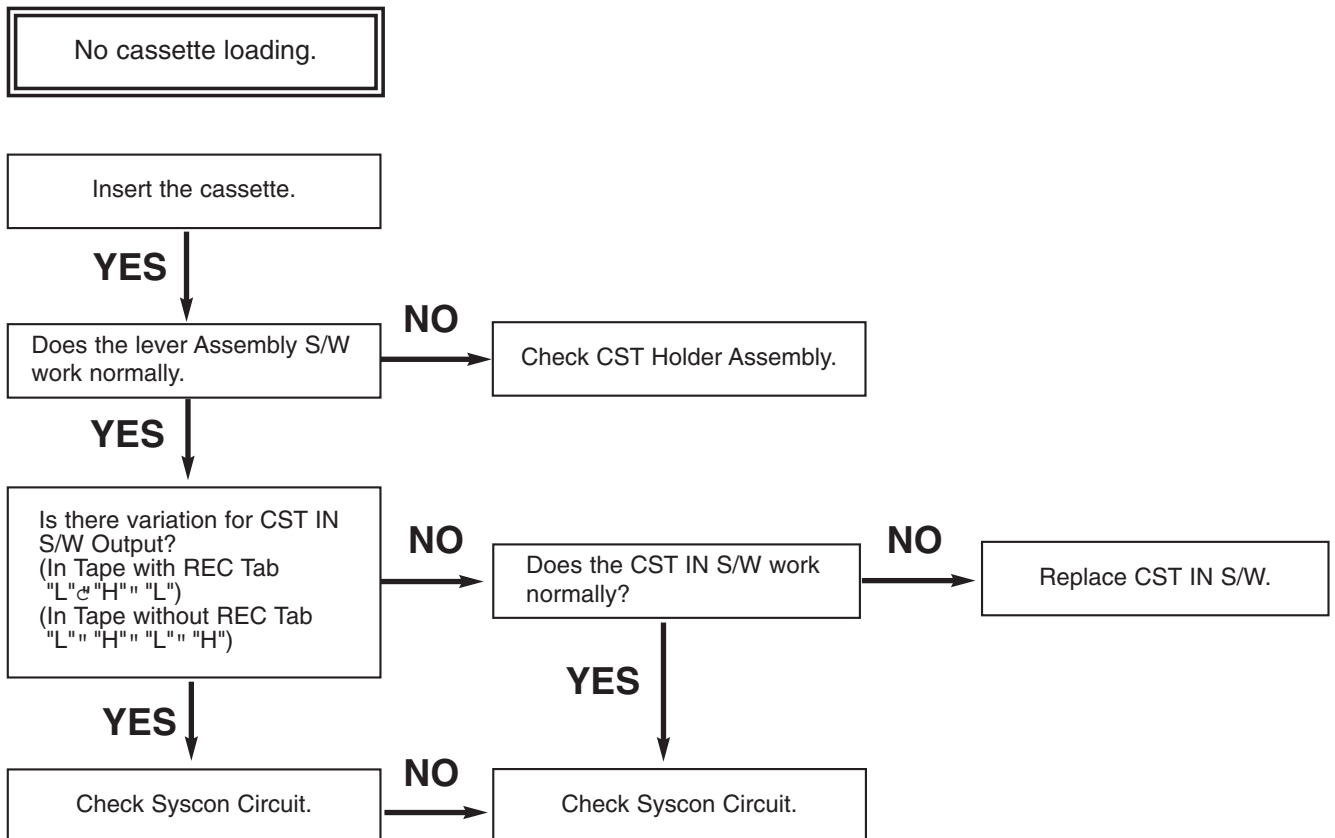
B.



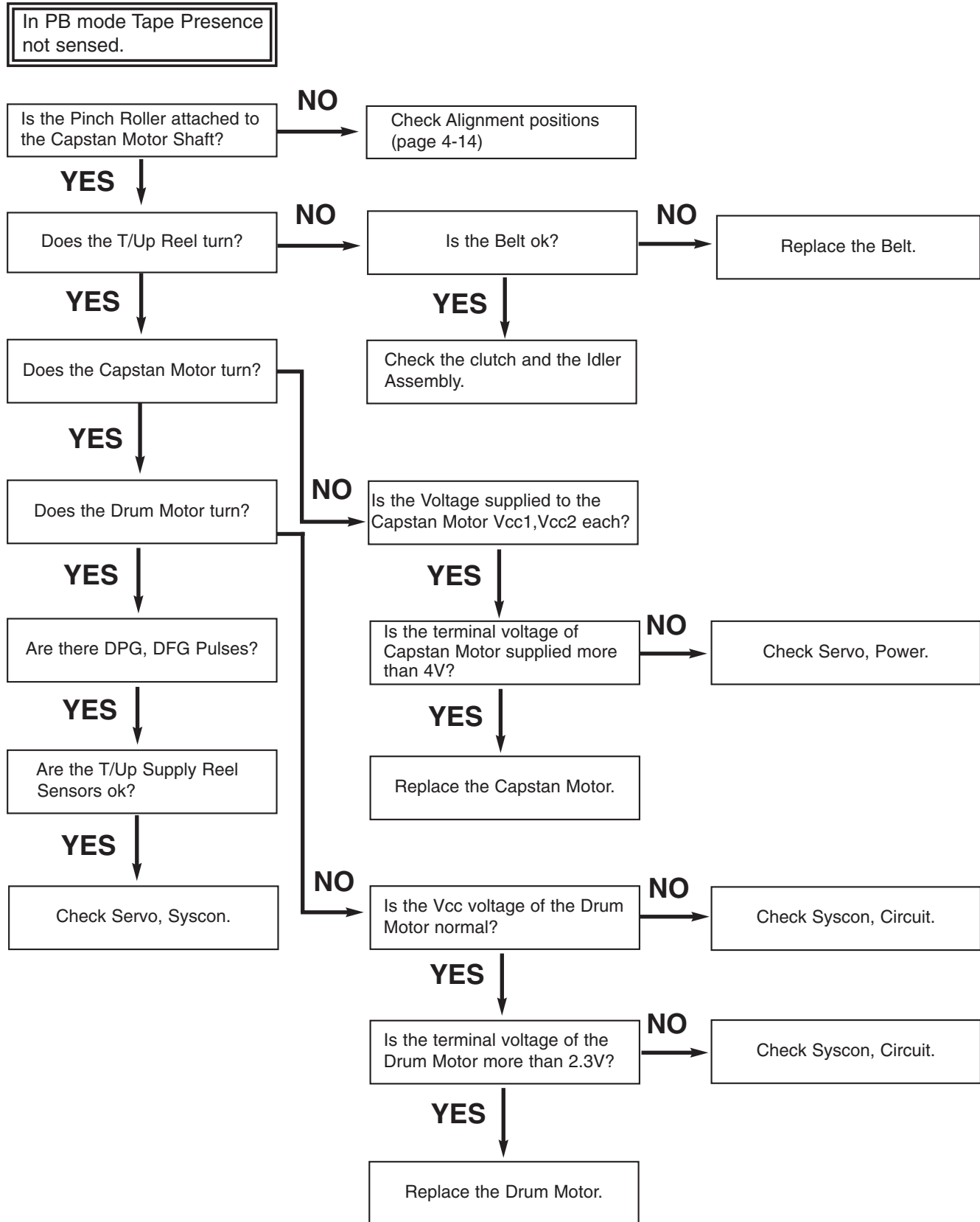
C.



D.

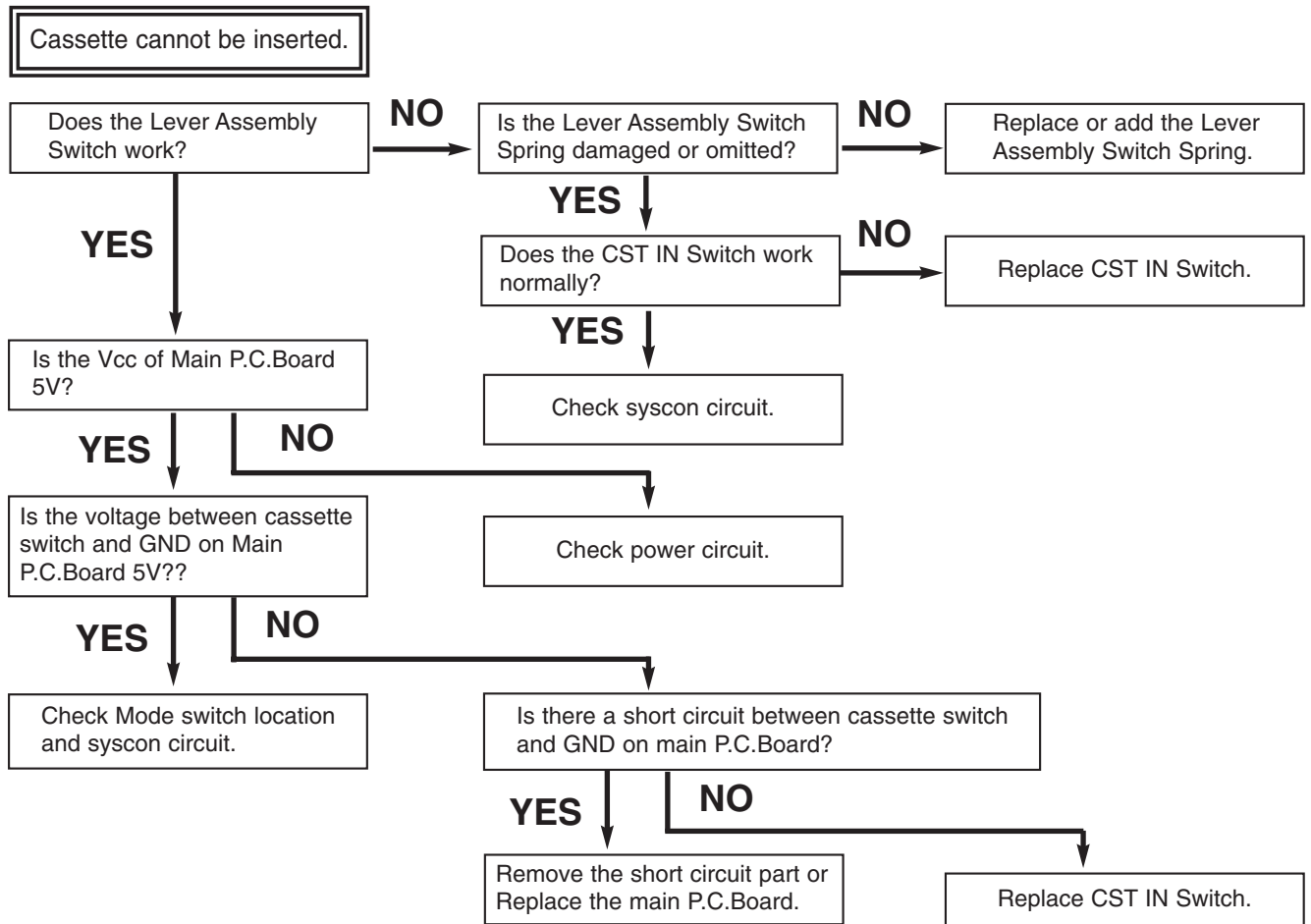


E.

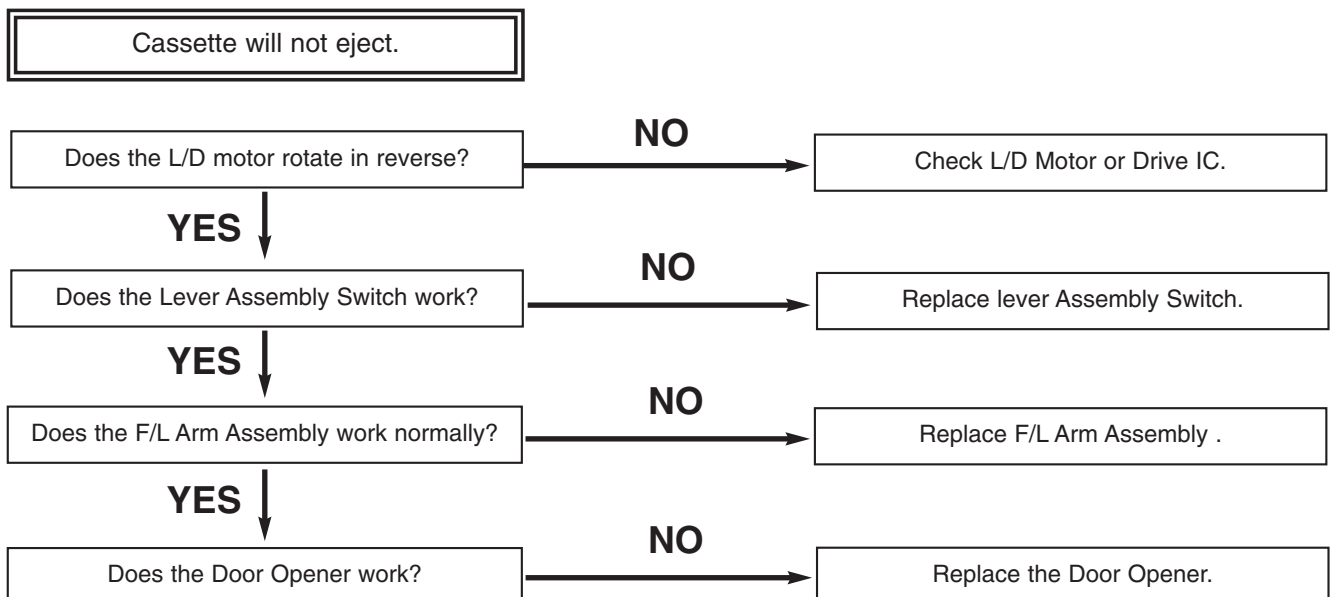


5.2.2 Front Loading Mechanism

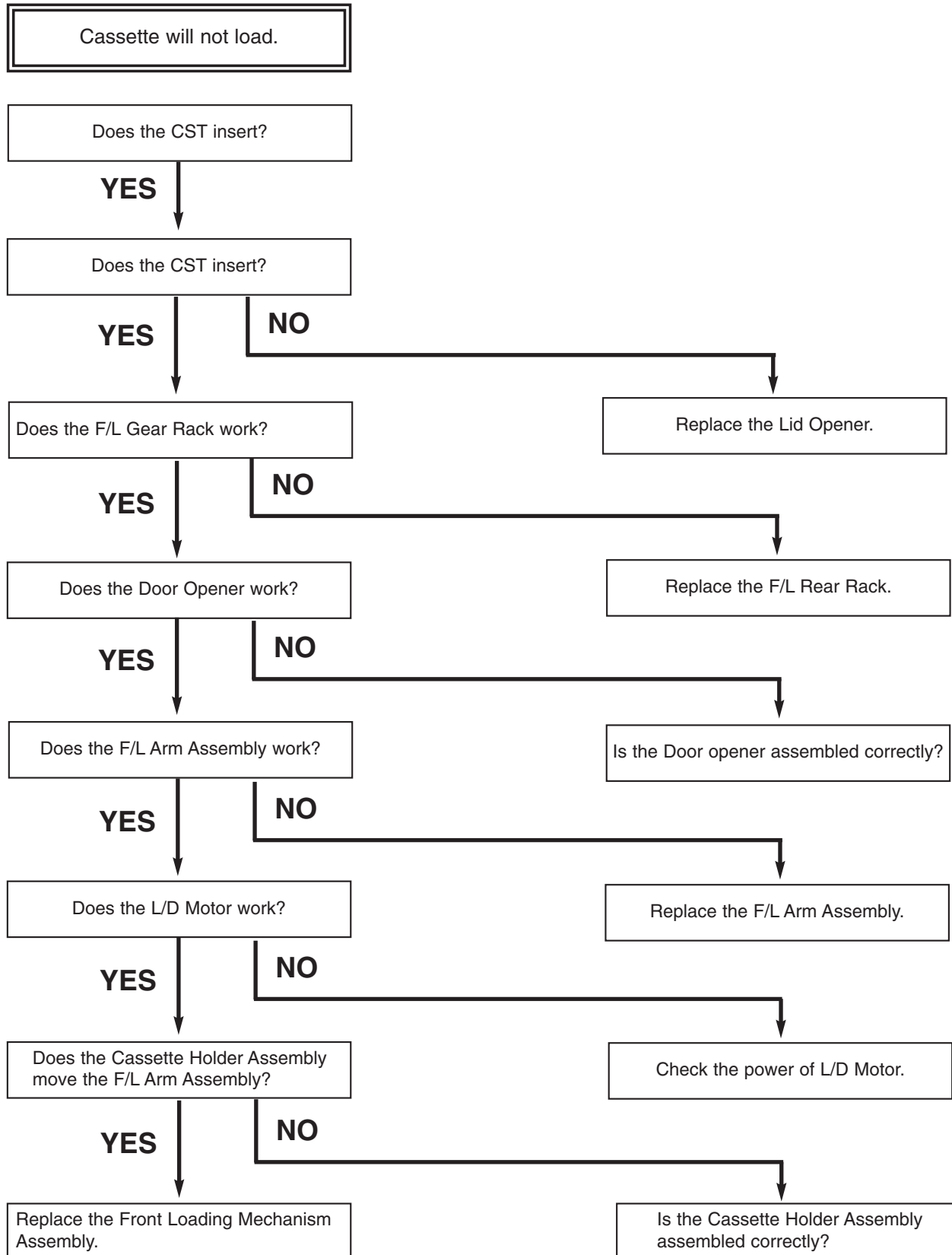
A.



B.



C.

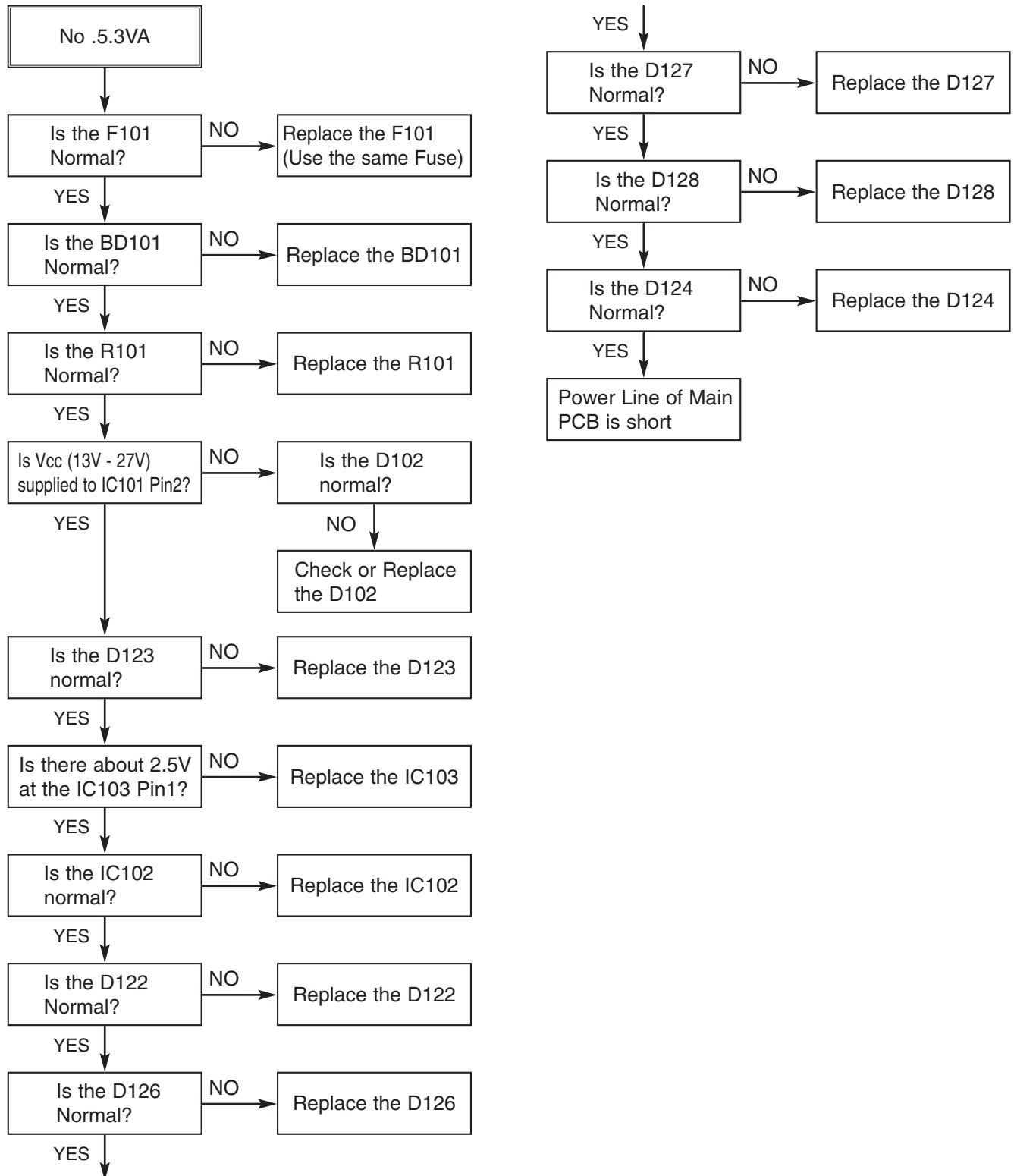


5.3 VDR ELECTRICAL TROUBLESHOOTING GUIDE

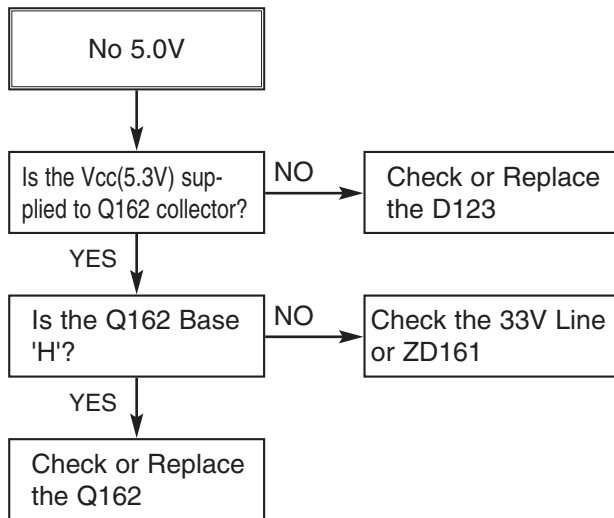
Electric parts of the DVD mechanism cannot be repaired because of the unit exchange.
Therefore, please refer to this flow chart as an advance knowledge.

5.3.1 POWER(SMPS) CIRCUIT

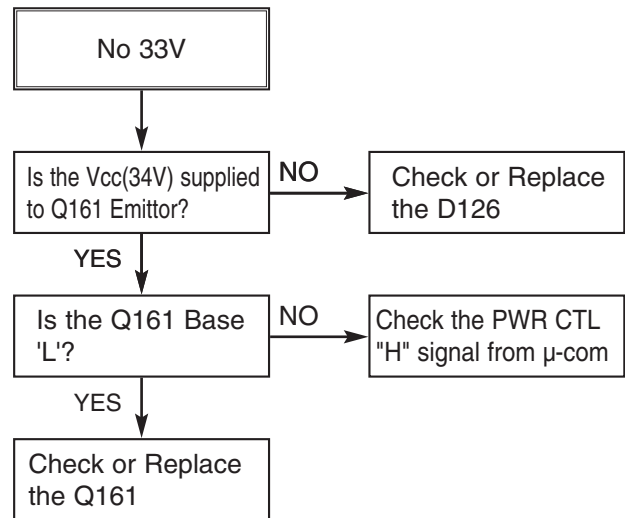
(1) No .5.3VA



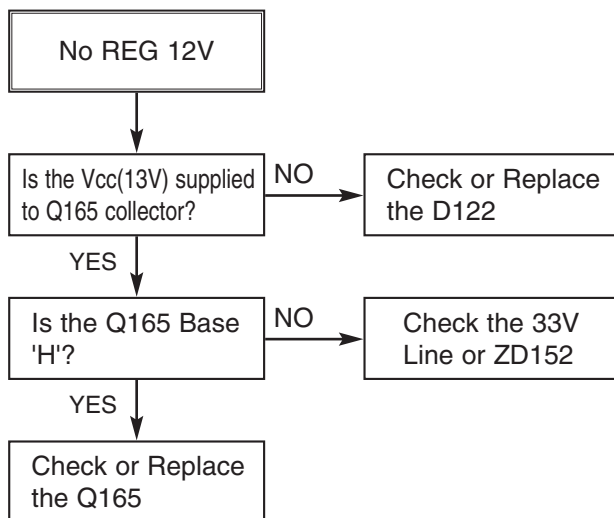
(2) No 5.0V



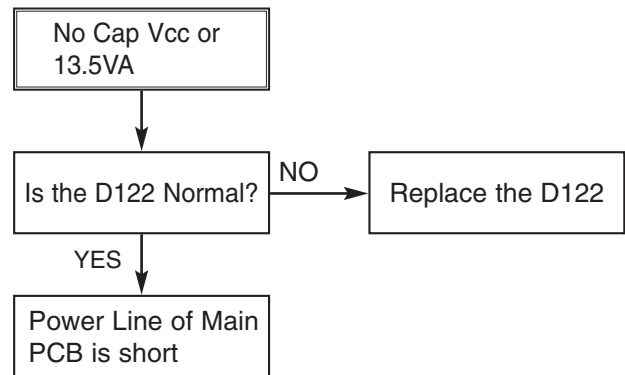
(3) No 33V



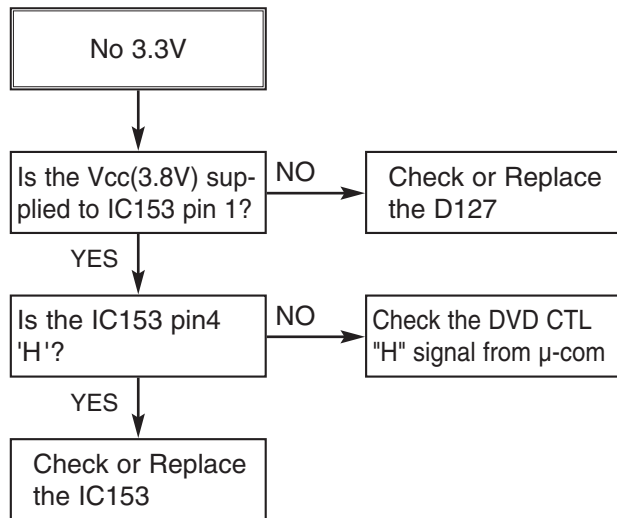
(4) No REG 12V



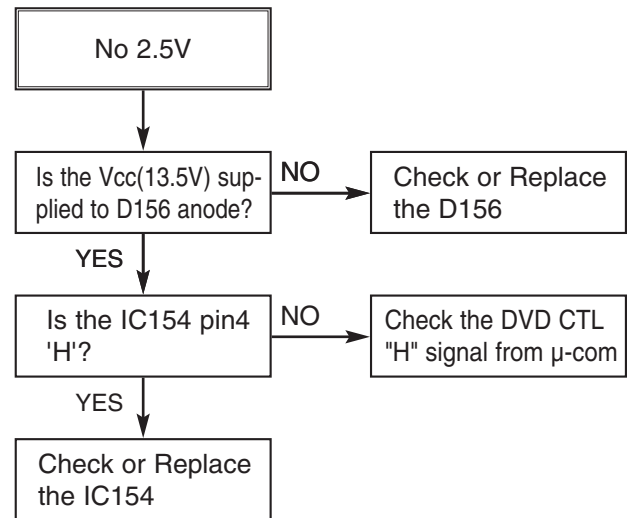
(5) No Cap Vcc or 13.5VA



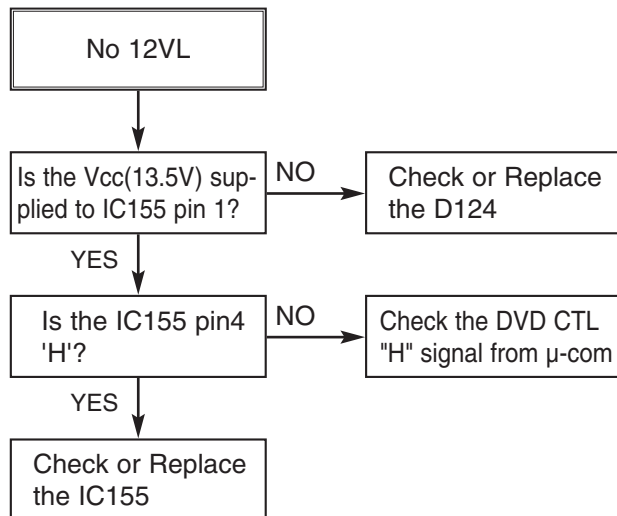
(6) No 3.3V



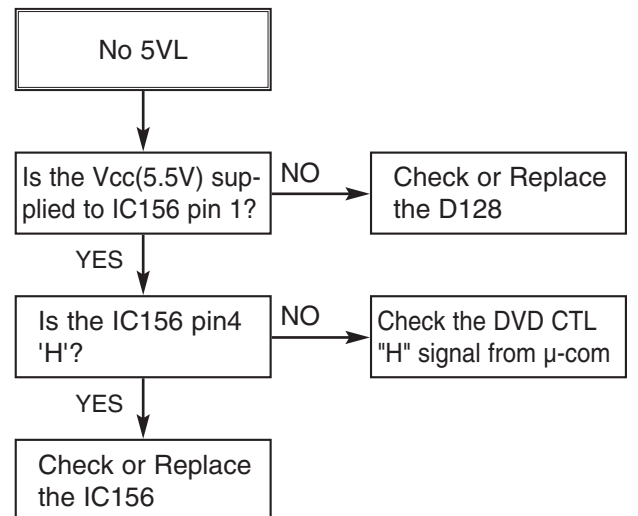
(7) No 2.5V



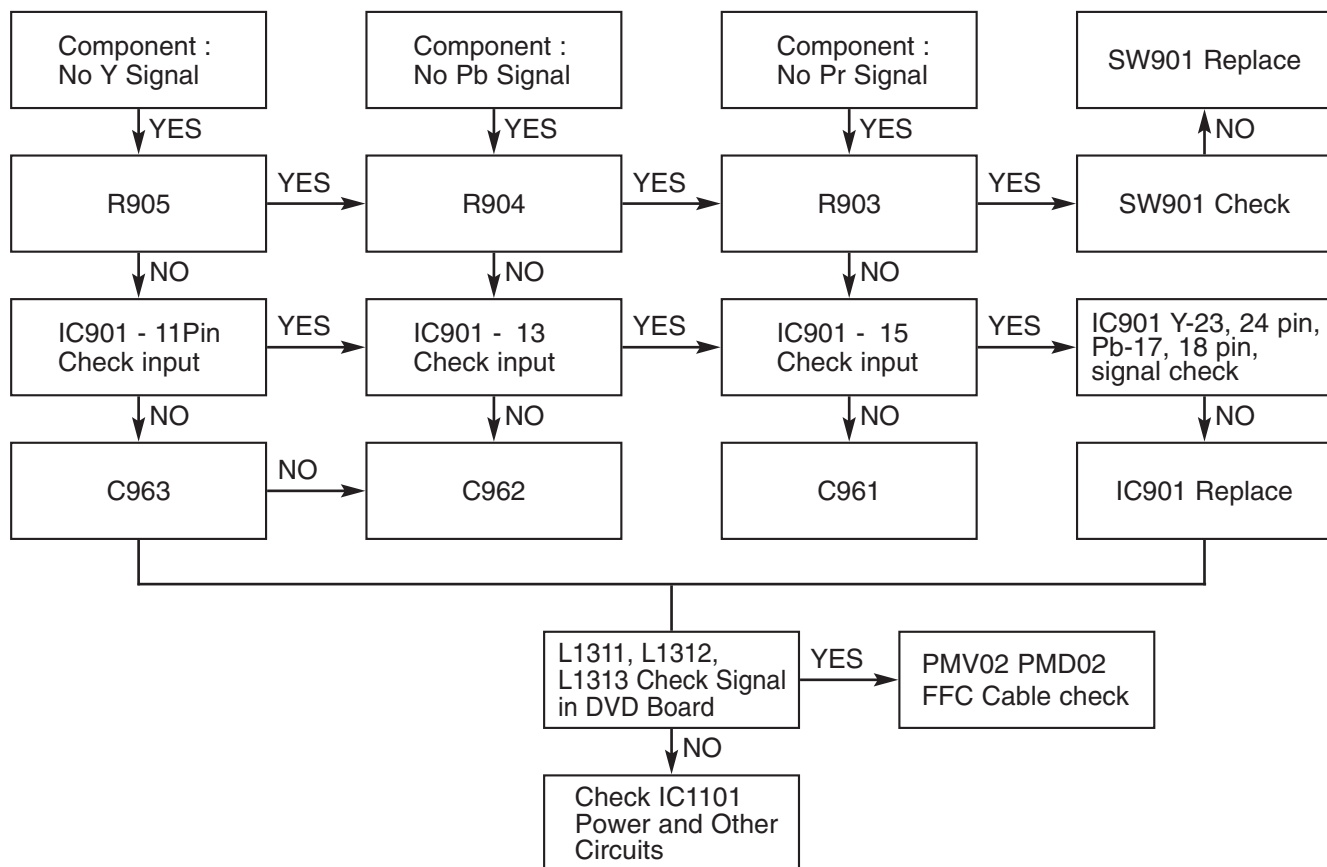
(8) No 12VL



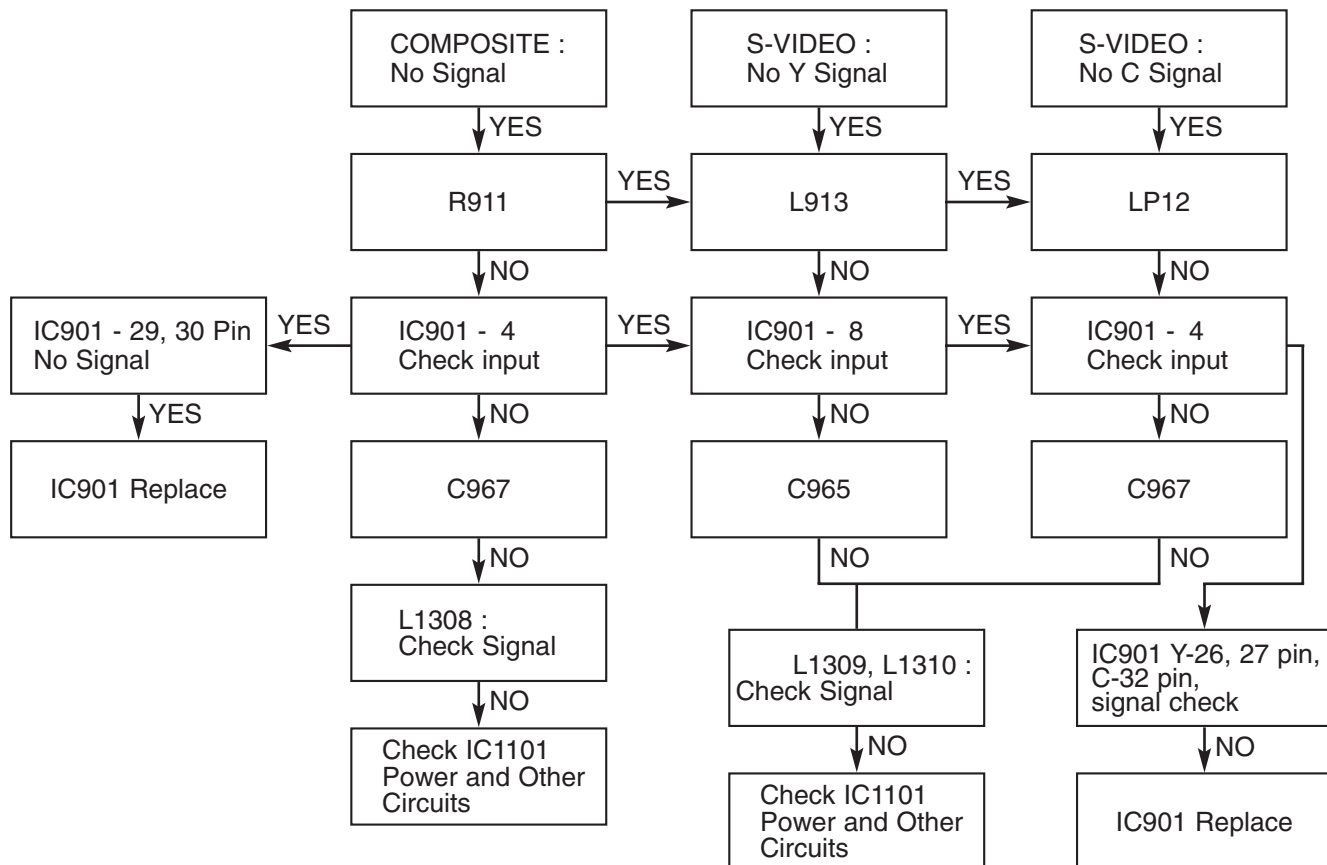
(9) No 5VL



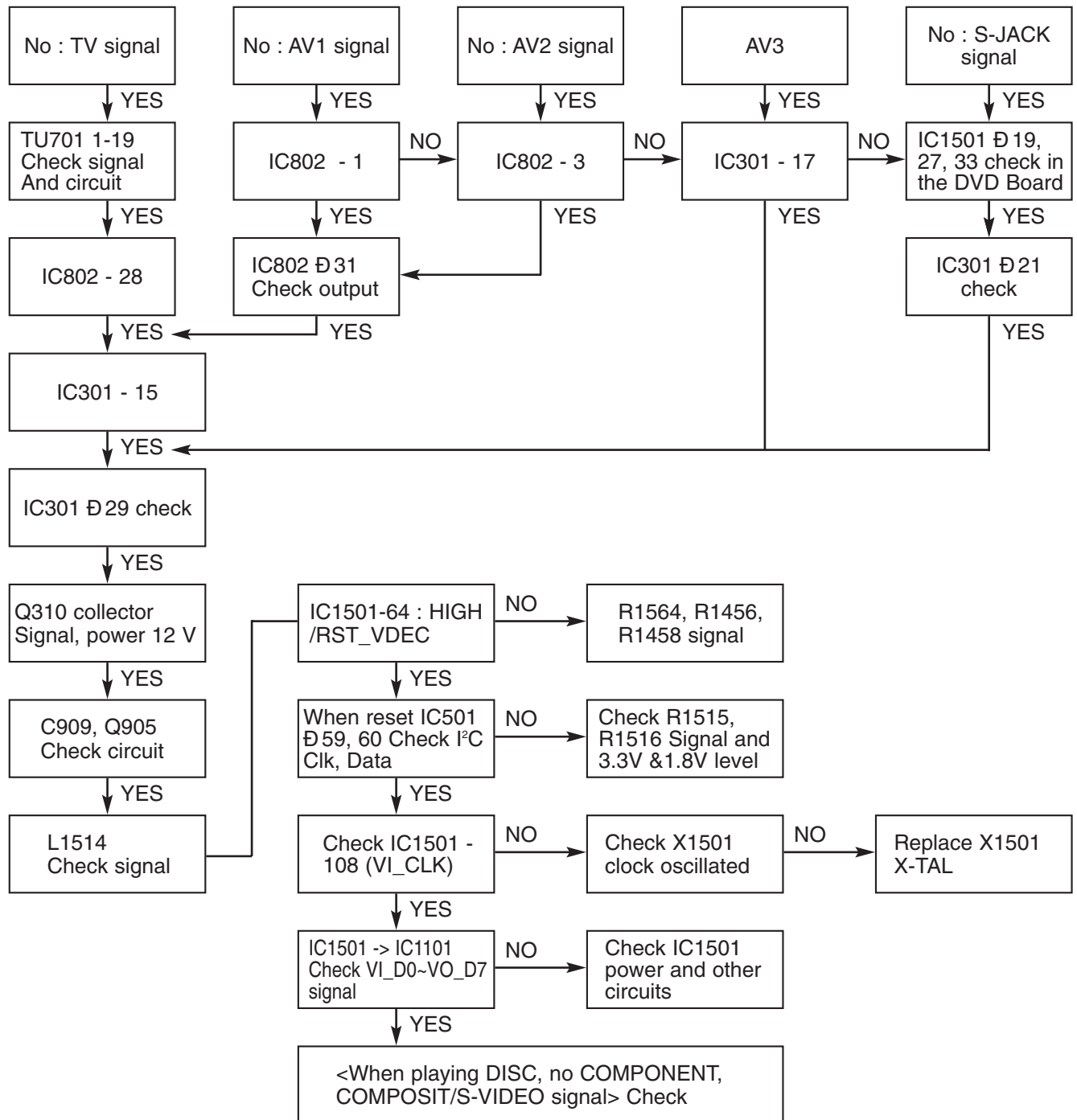
5.3.2 NO COMPONENT VIDEO SIGNAL WHEN PLAYING DISC



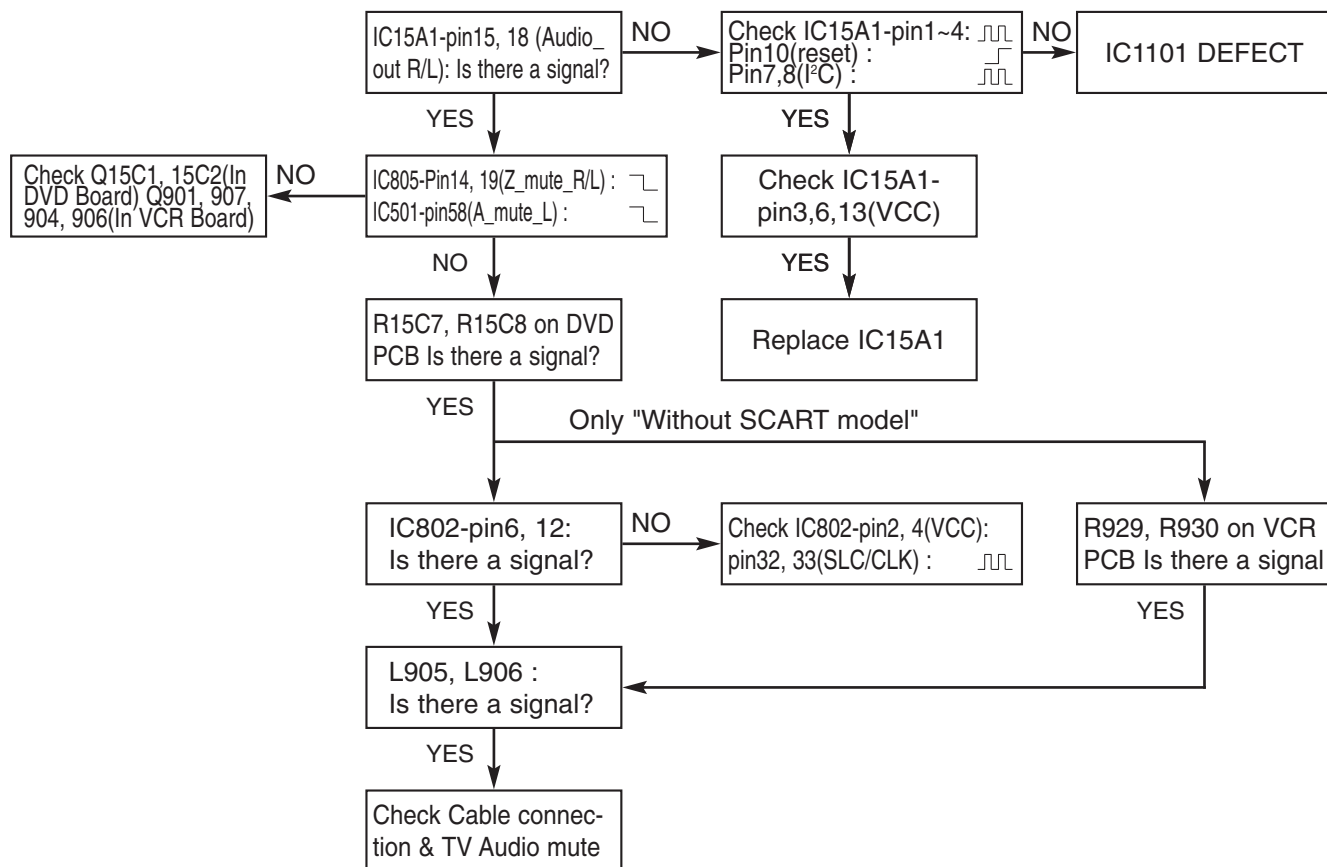
5.3.3 NO COMPOSITE / S-VIDEO SIGNAL WHEN PLAYING DISC



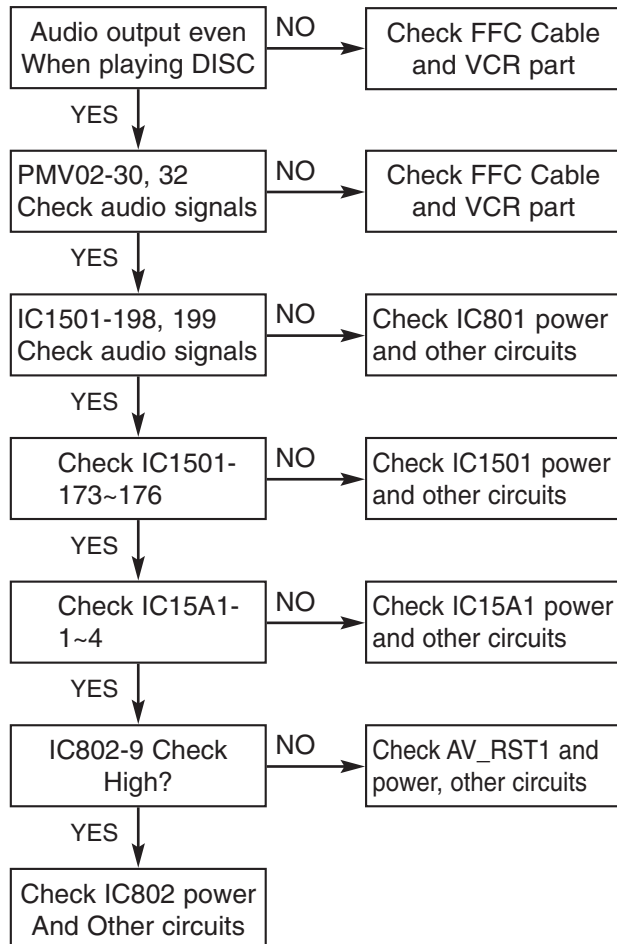
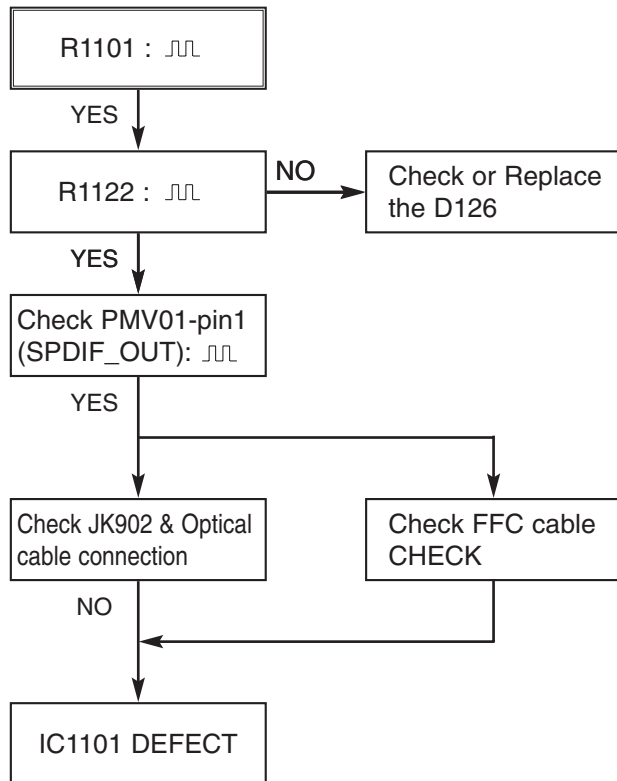
5.3.4 NO TV, EXTERNAL INPUT VIDEO SIGNAL



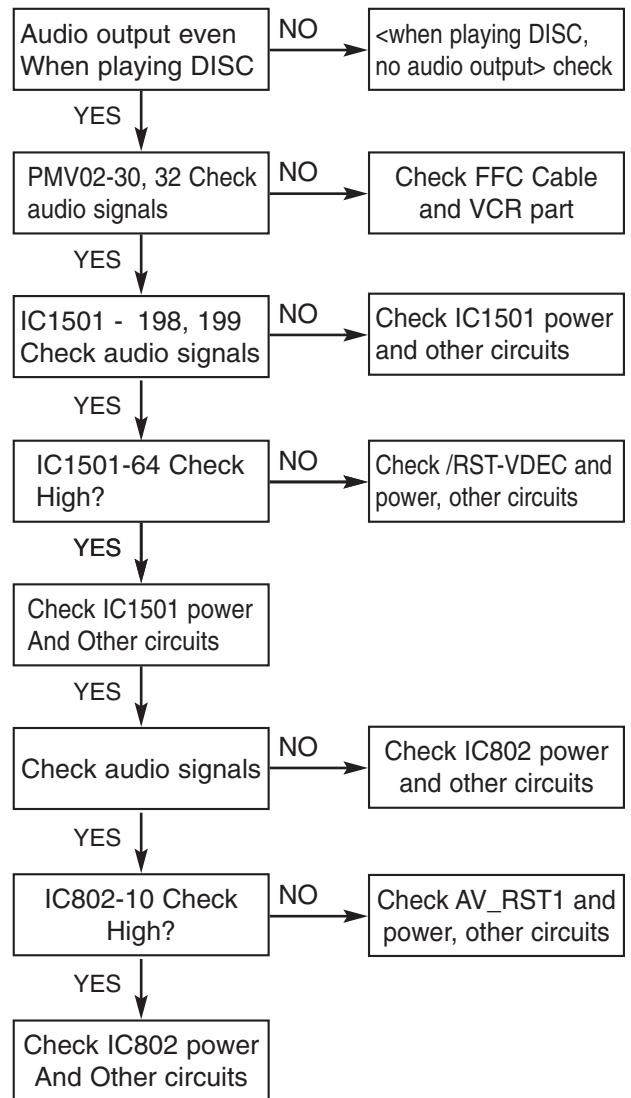
5.3.5 WHEN PLAYING DISC, NO AUDIO OUTPUT



5.3.6 NO OPTICAL / DIGITAL OUTPUT

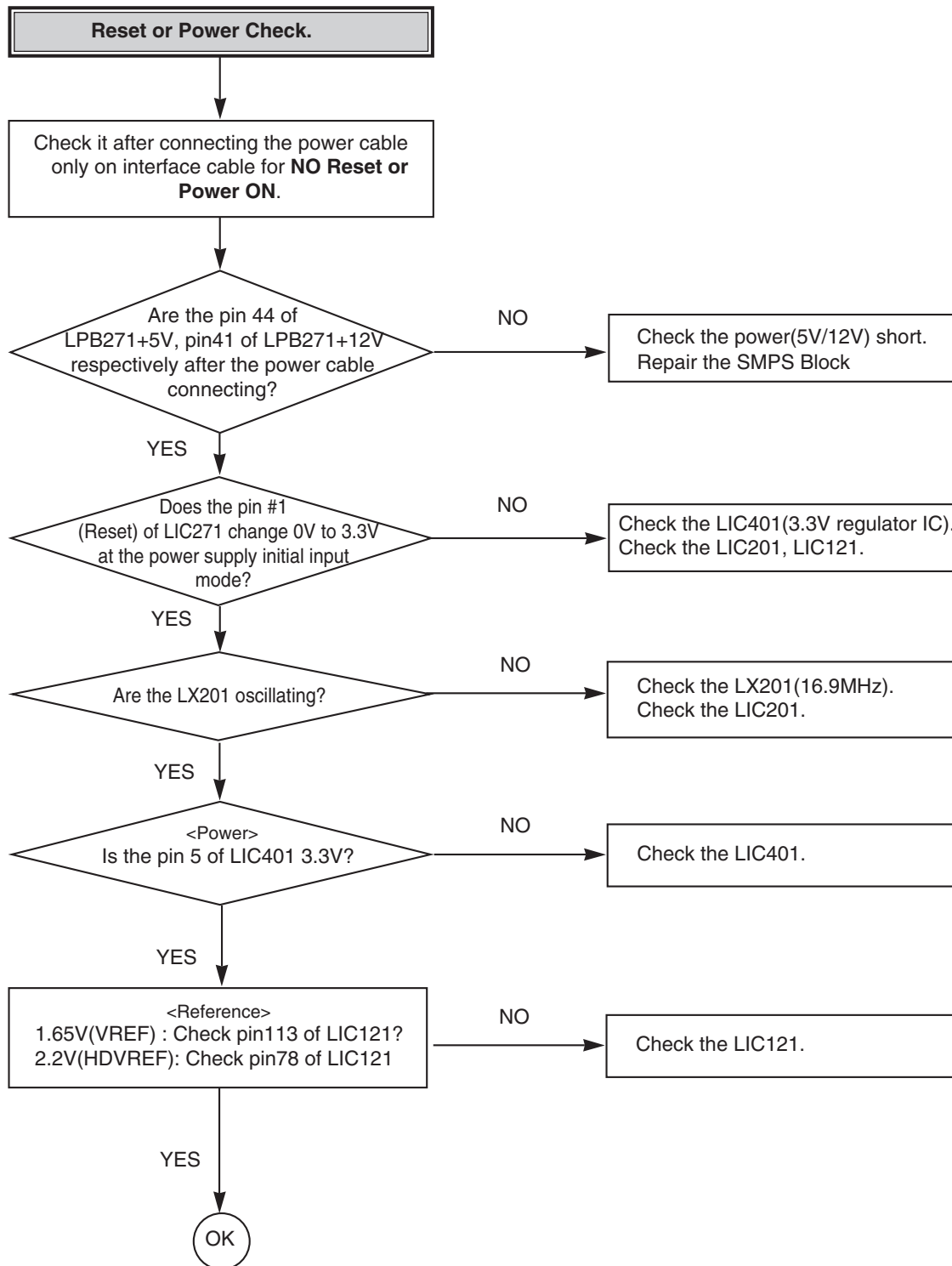


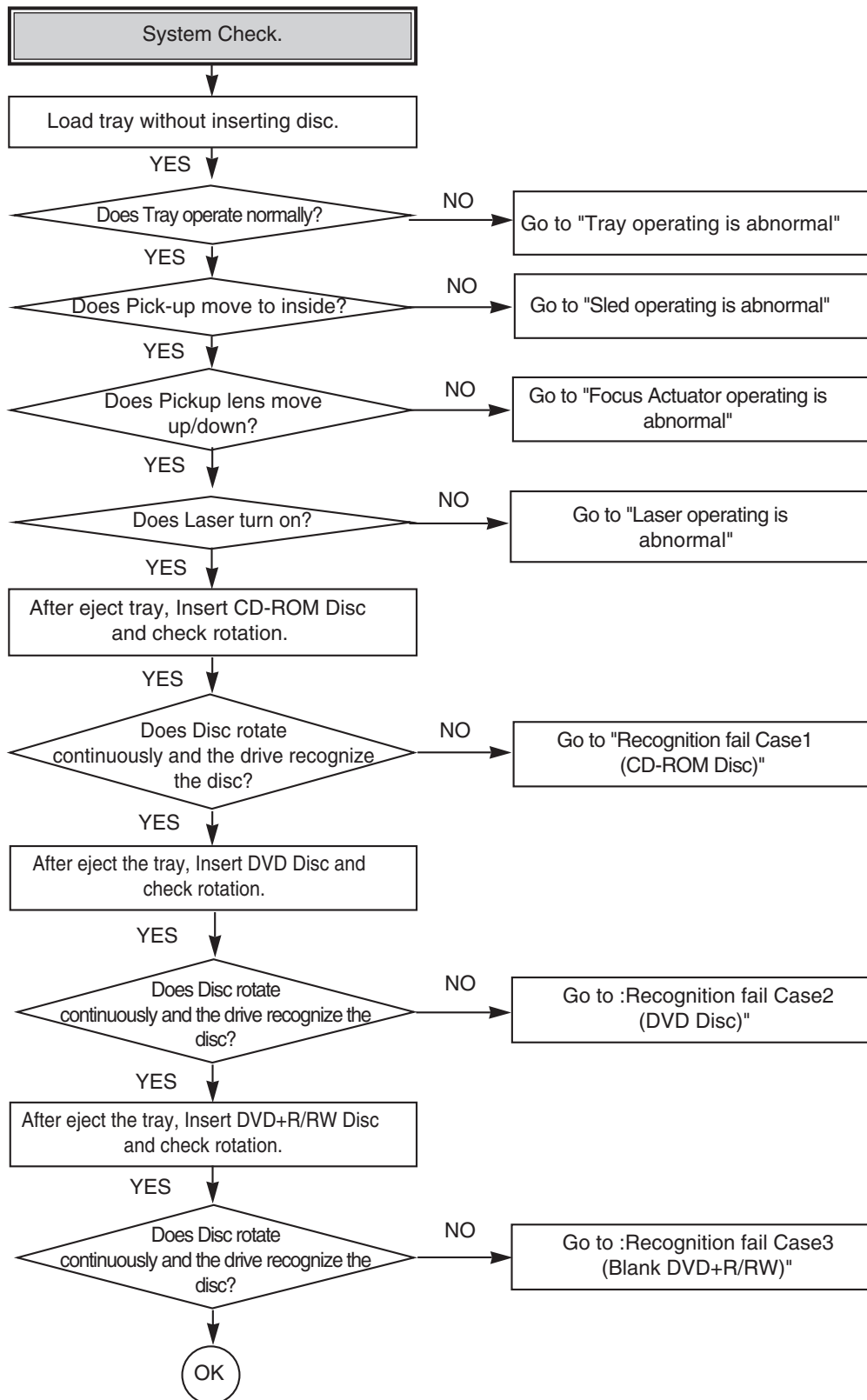
5.3.8 NO EXTERNAL INPUT 1, 2, 3 AUDIO

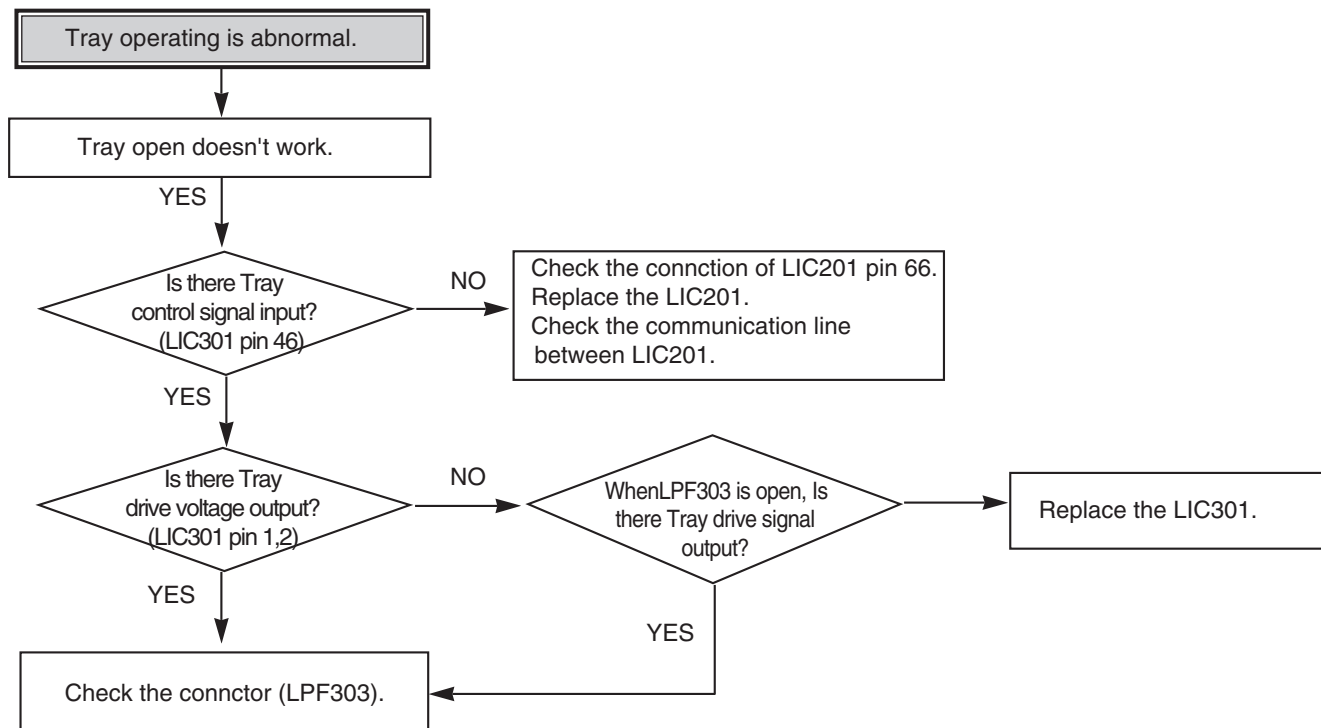


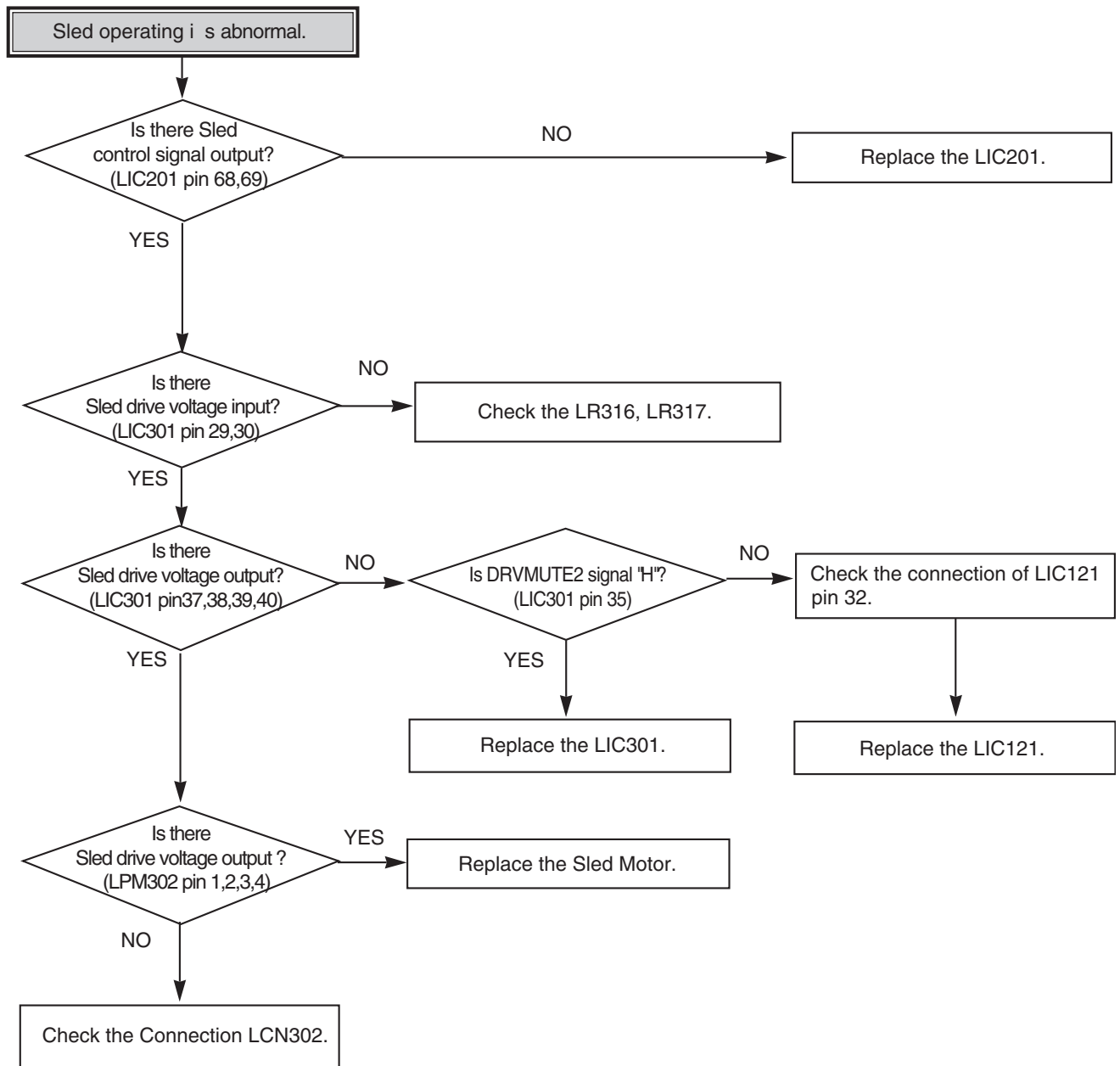
5.4 MECHANISM TROUBLESHOOTING GUIDE(VDR PART)

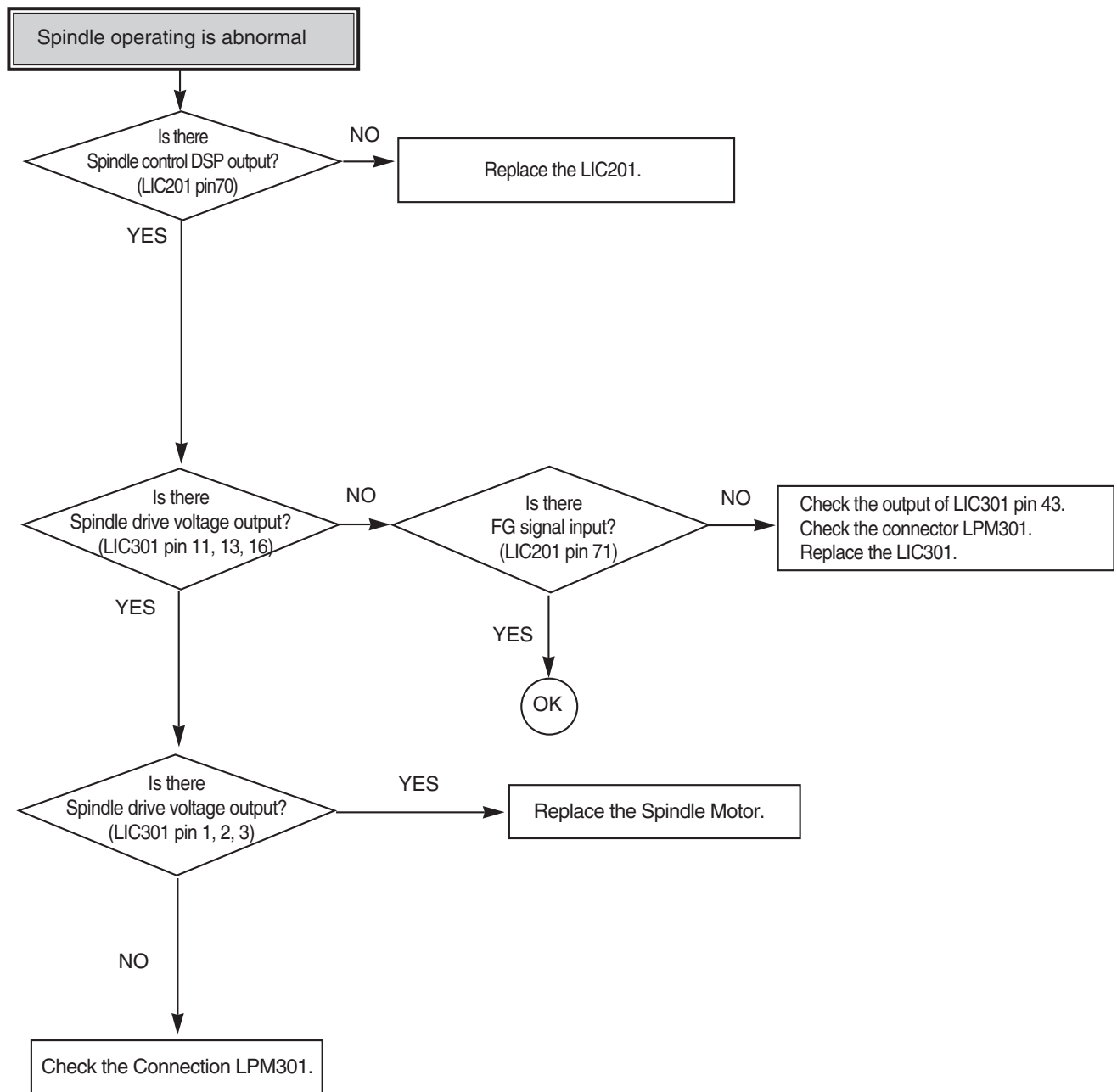
Electric parts of the DVD mechanism cannot be repaired because of the unit exchange.
Therefore, please refer to this flow chart as an advance knowledge.

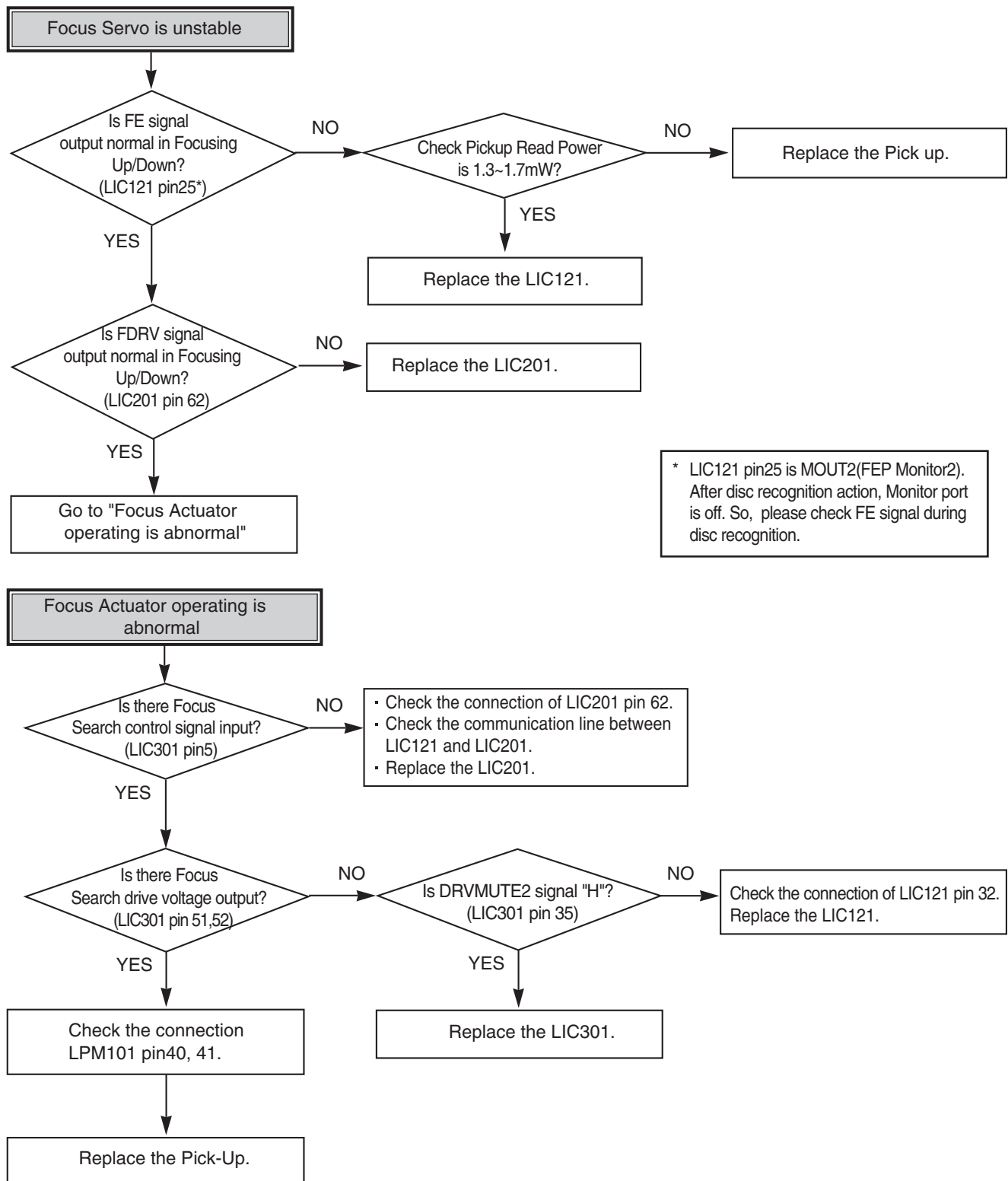


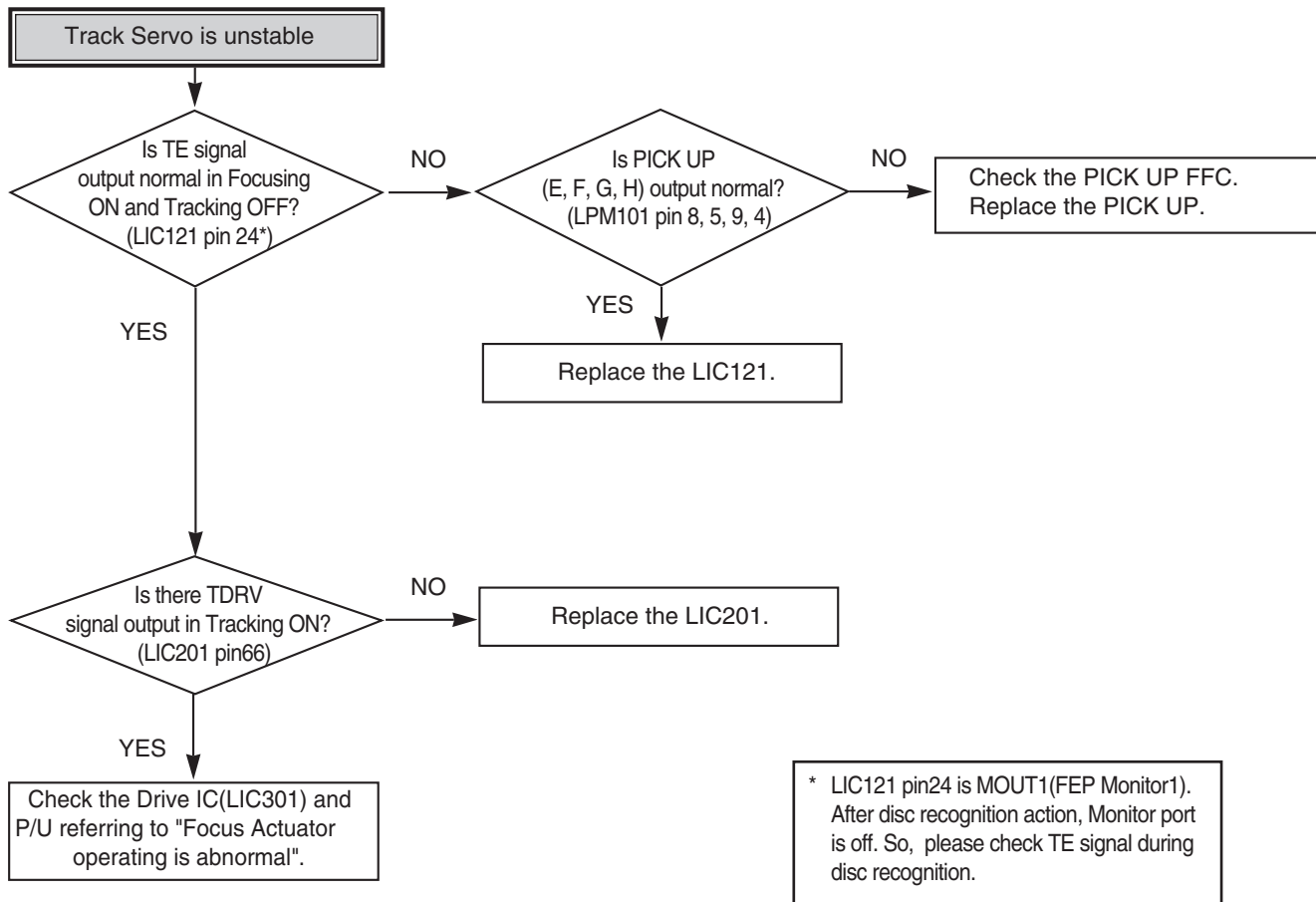


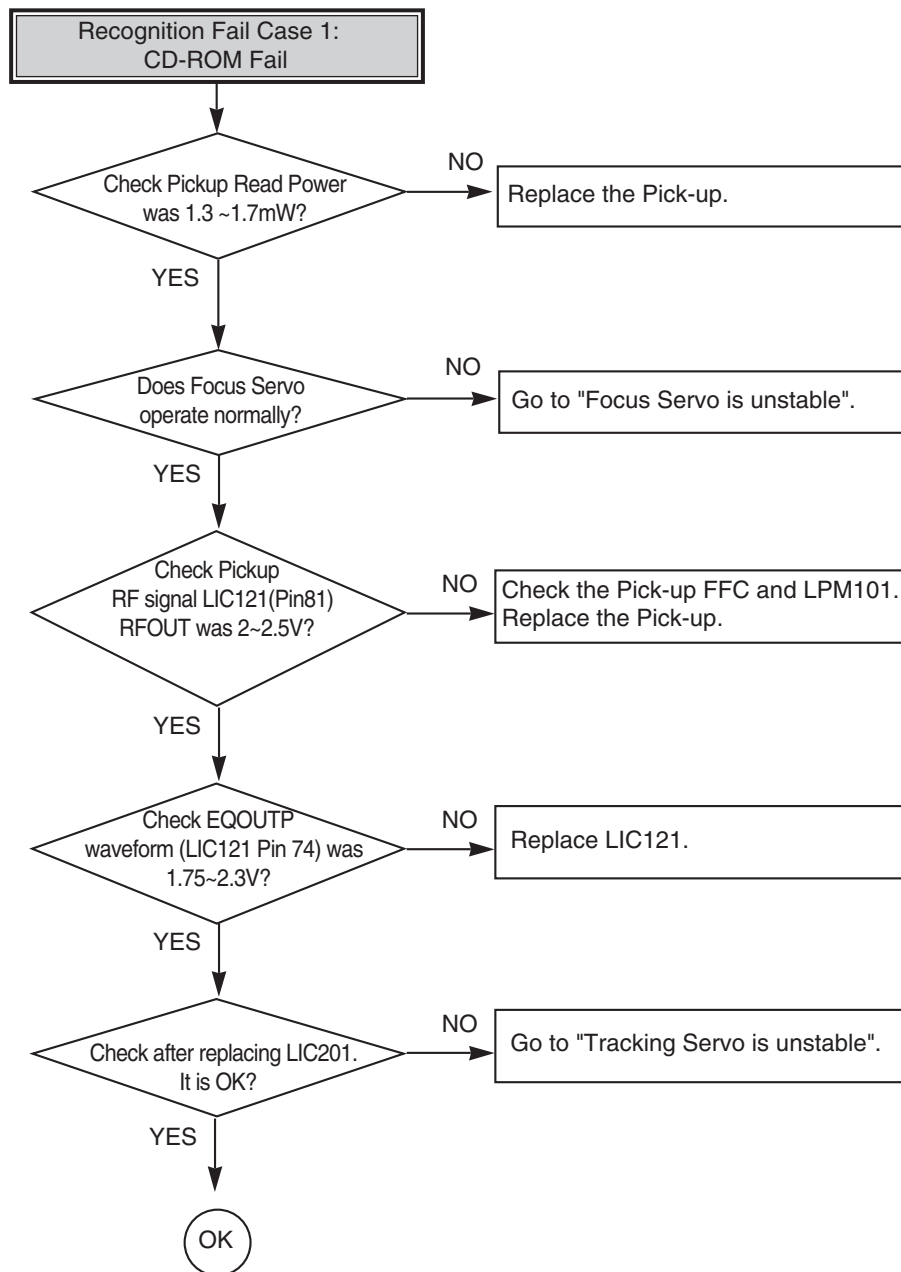


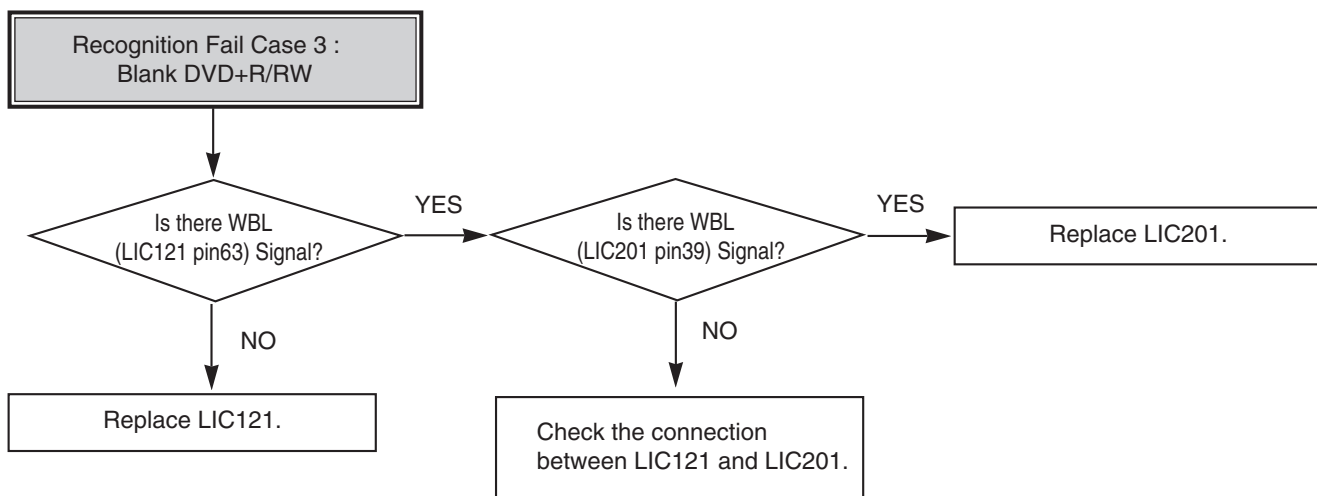
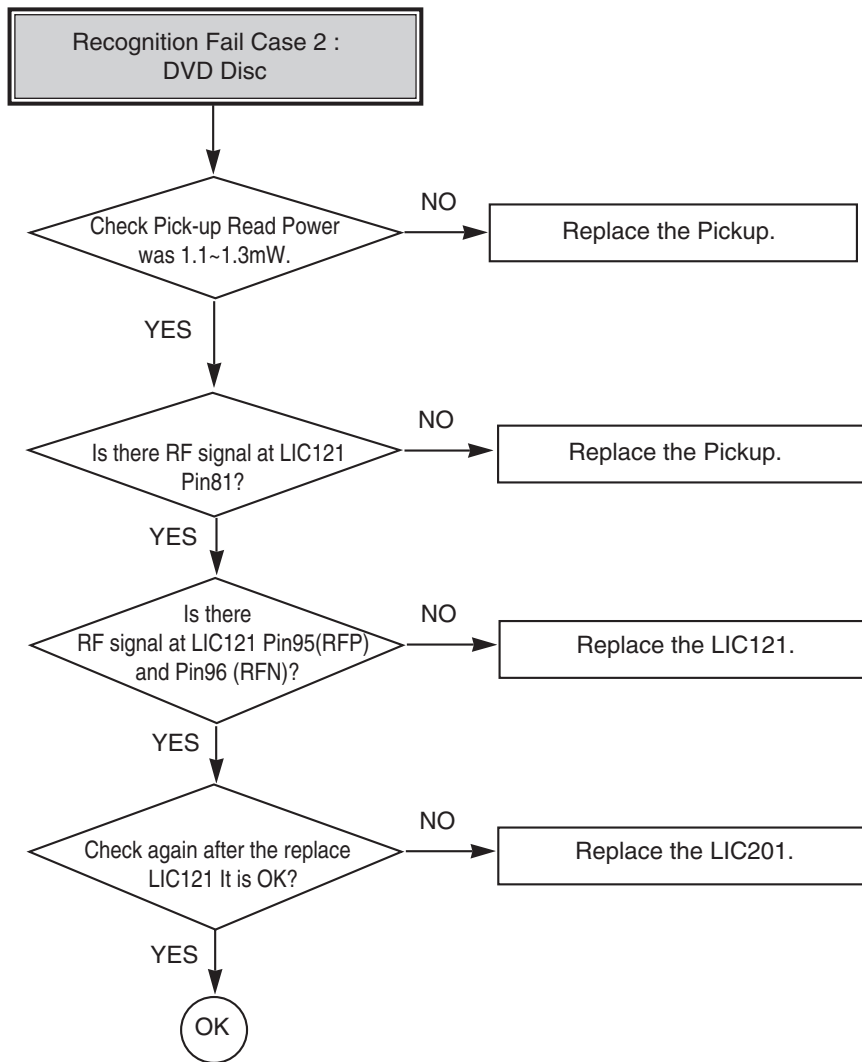




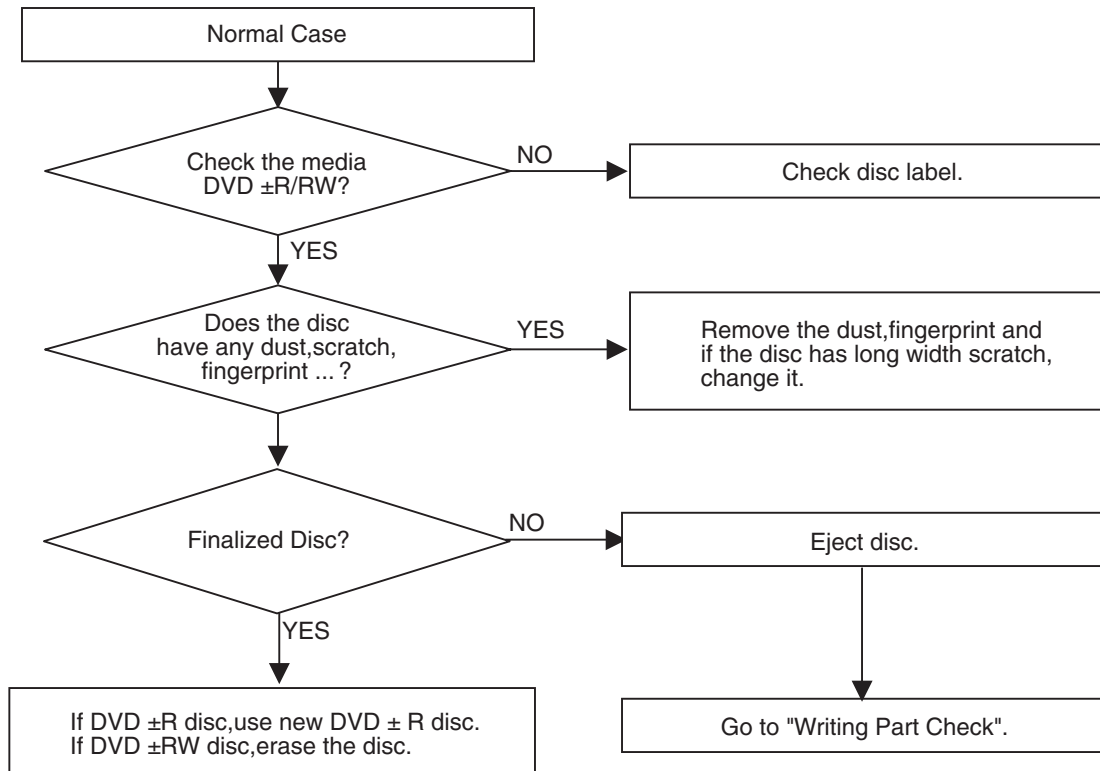




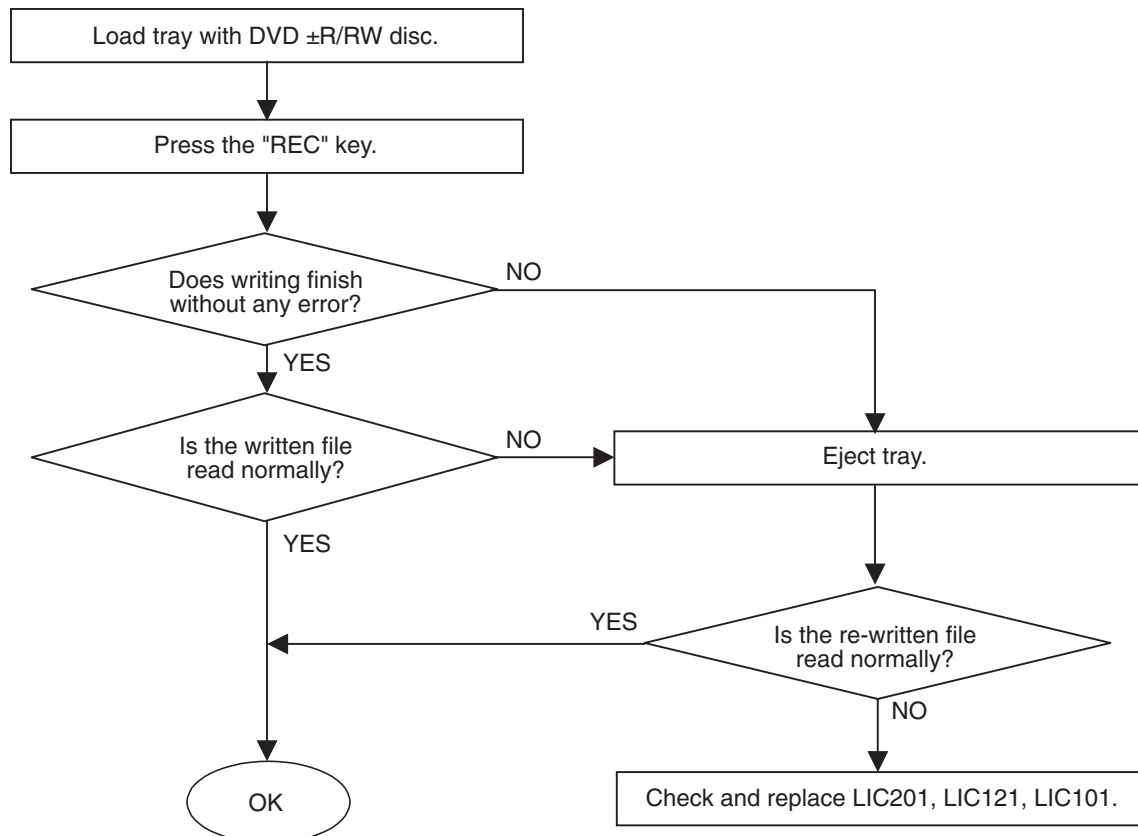




In case of writing fail.



Writing Part Check





Victor Company of Japan, Limited
DIGITAL VIDEO STORAGE CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

(No.YD101)



Printed in Japan
VPT

JVC

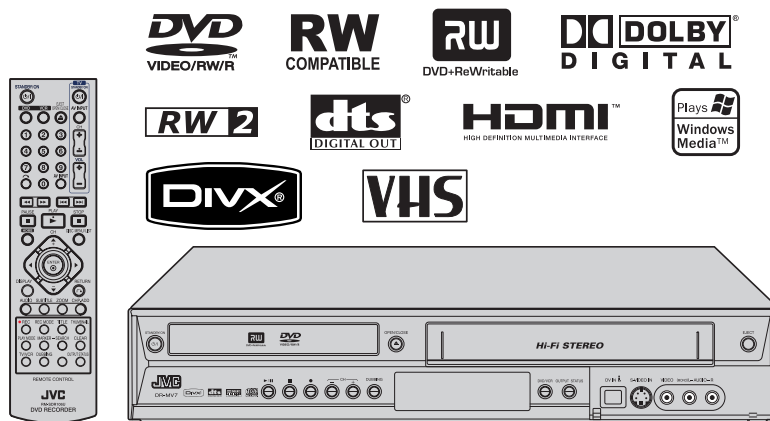
SCHEMATIC DIAGRAMS

DVD RECORDER / VIDEO CASSETTE RECORDER

DR-MV7SUS

CD-ROM No.SML200608

Area Suffix	
US	U.S.A.




DR-MV7SUS [D6RV21]

Please refer to other service manual HR-XVC16B,HR-XVC17S (No. YD093) for the item without the description.

CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol  are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

- 1) All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
Chip resistors are 1/16 W.
K: K Ω (1000 Ω), M: M Ω (1000K Ω)
- 2) All capacitance values are in μ F, (P: PF).
- 3) All inductance values are in μ H, (m: mH).
- 4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

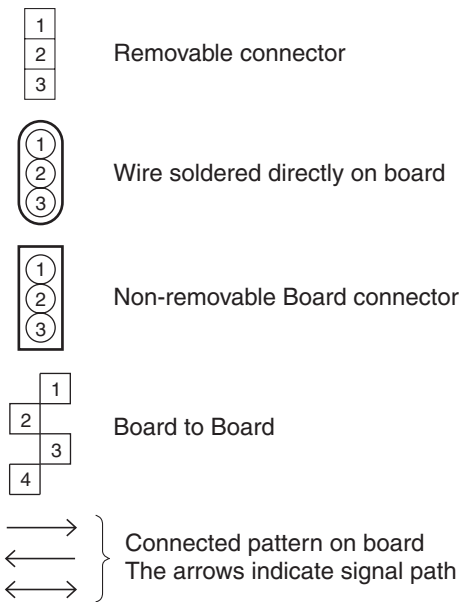
Note: The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.

2. Indications of control voltage

AUX : Active at high.

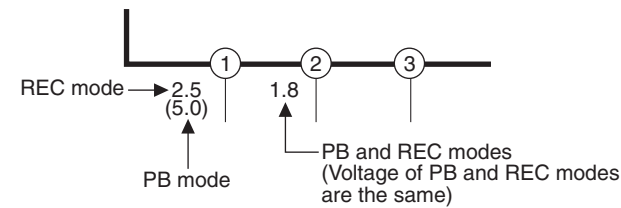
$\overline{\text{AUX}}$ or AUX(L) : Active at low.

3. Interpreting Connector indications



4. Voltage measurement

- 1) Regulator (DC/DC CONV) circuits
REC : Colour bar signal.
PB : Alignment tape (Colour bar).
— : Unmeasurable or unnecessary to measure.
- 2) Indication on schematic diagram
Voltage indications for REC and PB mode on the schematic diagram are as shown below.



Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

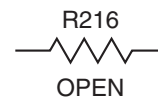
6. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



7. Indication of the parts not mounted on the circuit board

“OPEN” is indicated by the parts not mounted on the circuit board.



CIRCUIT BOARD NOTES

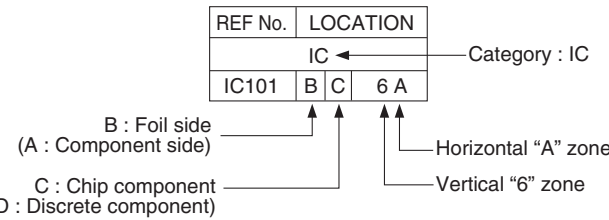
1. Foil and Component sides

- 1) Foil side (B side) :
Parts on the foil side seen from foil face (pattern face) are indicated.
- 2) Component side (A side) :
Parts on the component side seen from component face (parts face) indicated.

Parts location are indicated by guide scale on the circuit board.

2. Parts location guides

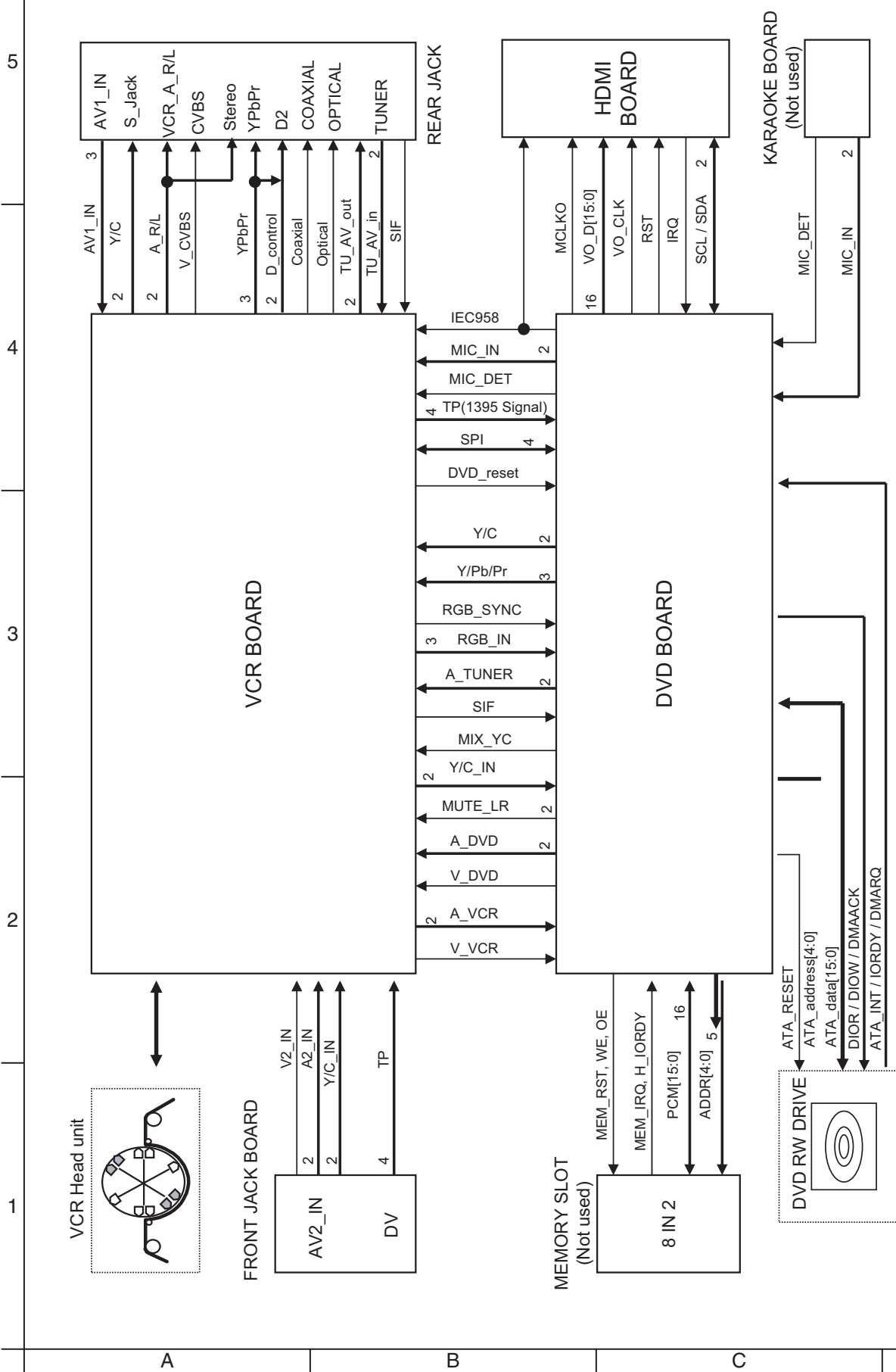
Parts location are indicated by guide scale on the circuit board.



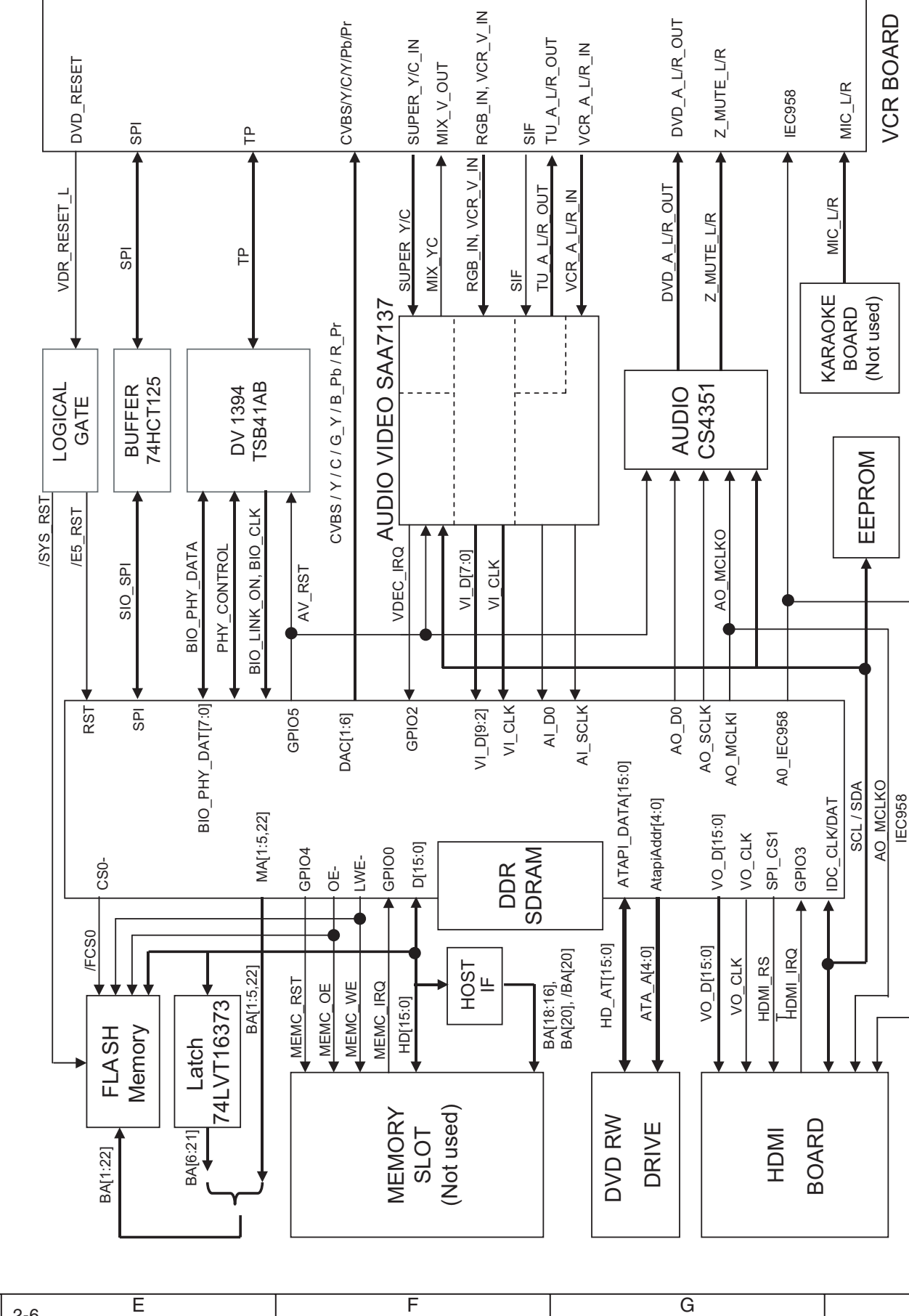


Block diagrams

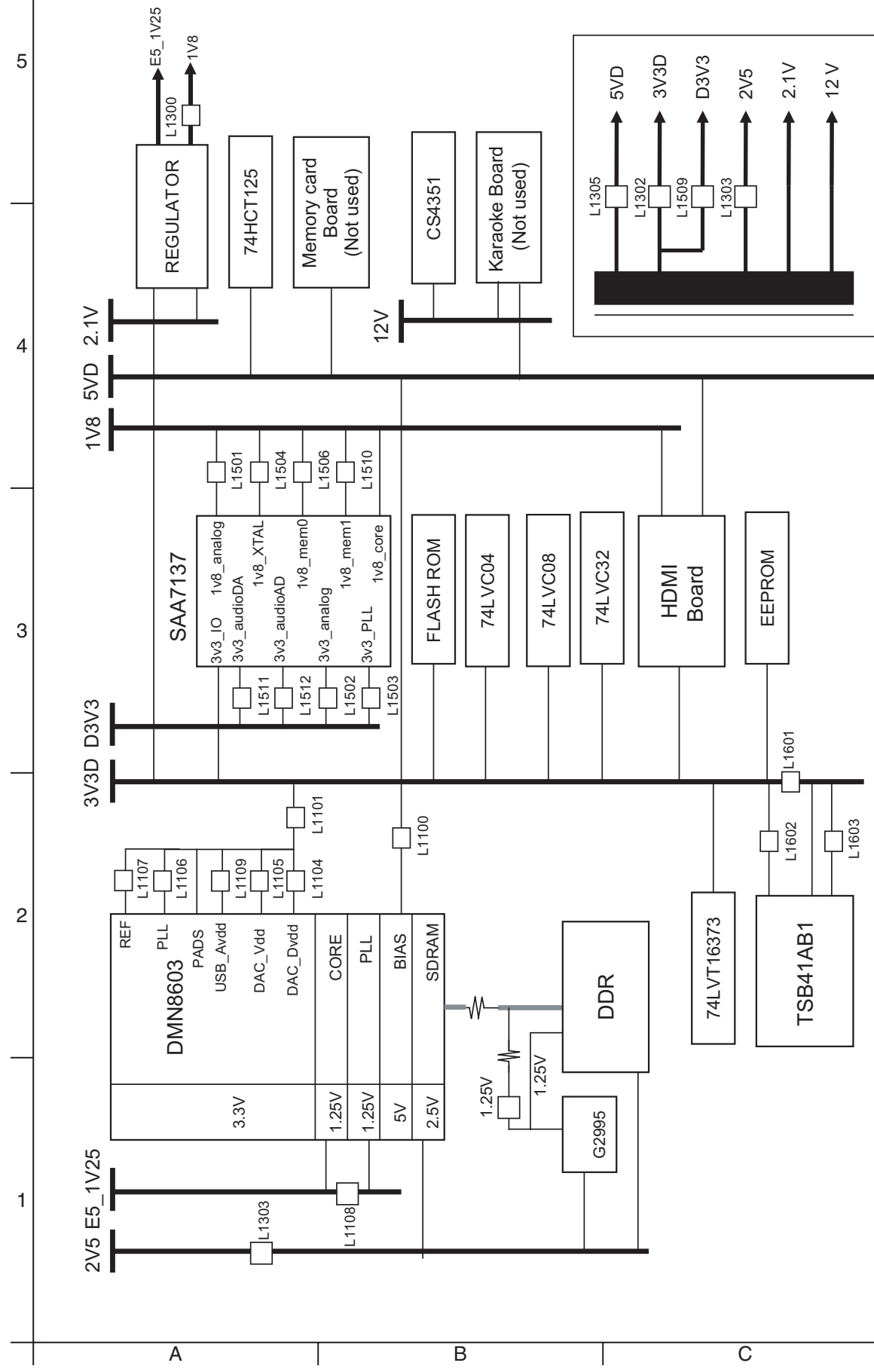
VDR Set total section



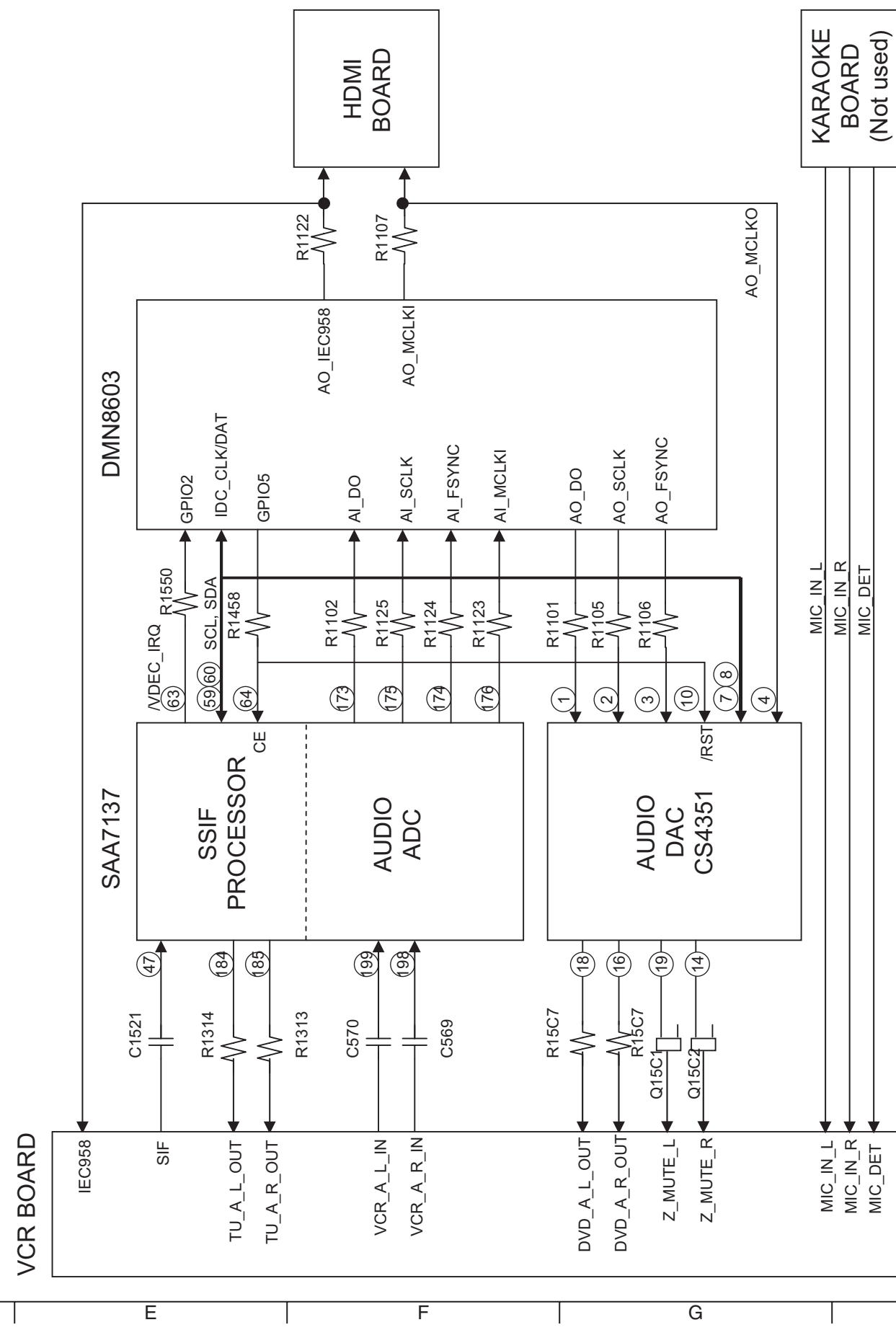
VDR Main H/W Section



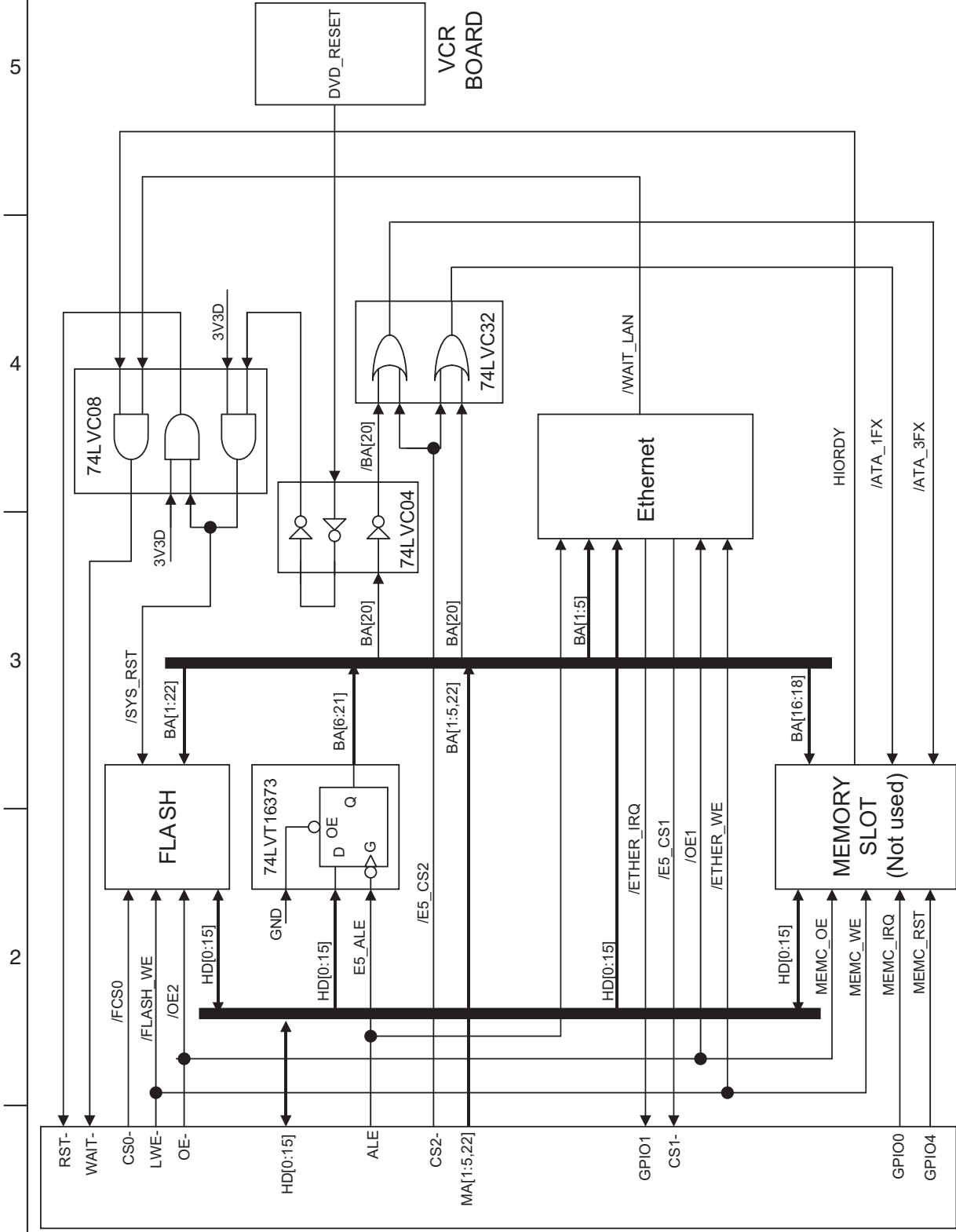
■ Power (Main) section



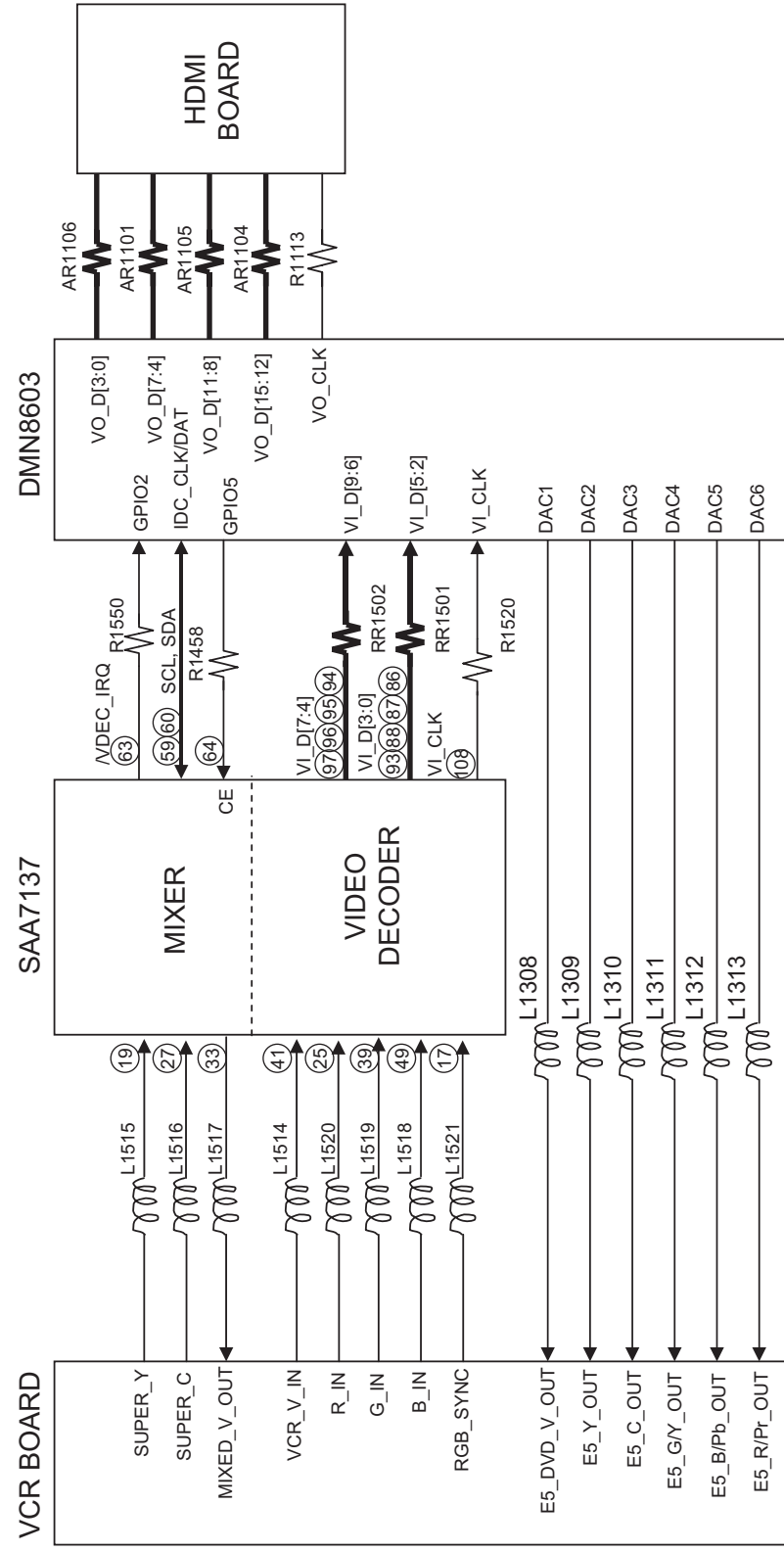
■ Audio IN/OUT section



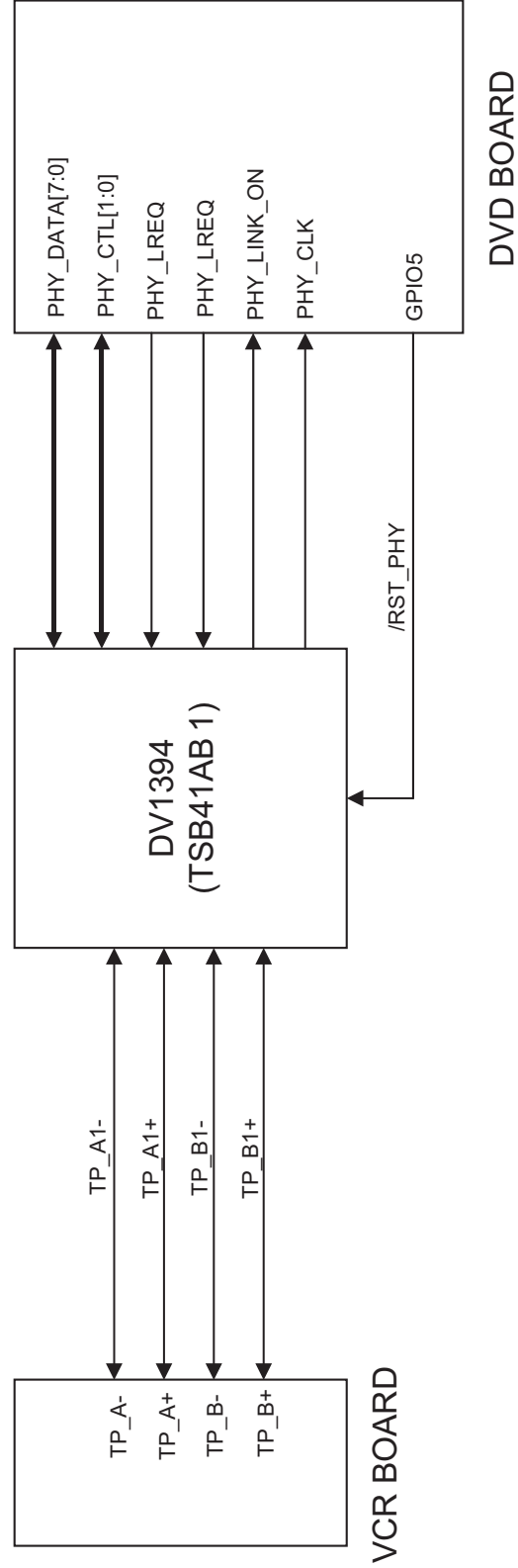
■ CPU and Control register and memory slot section



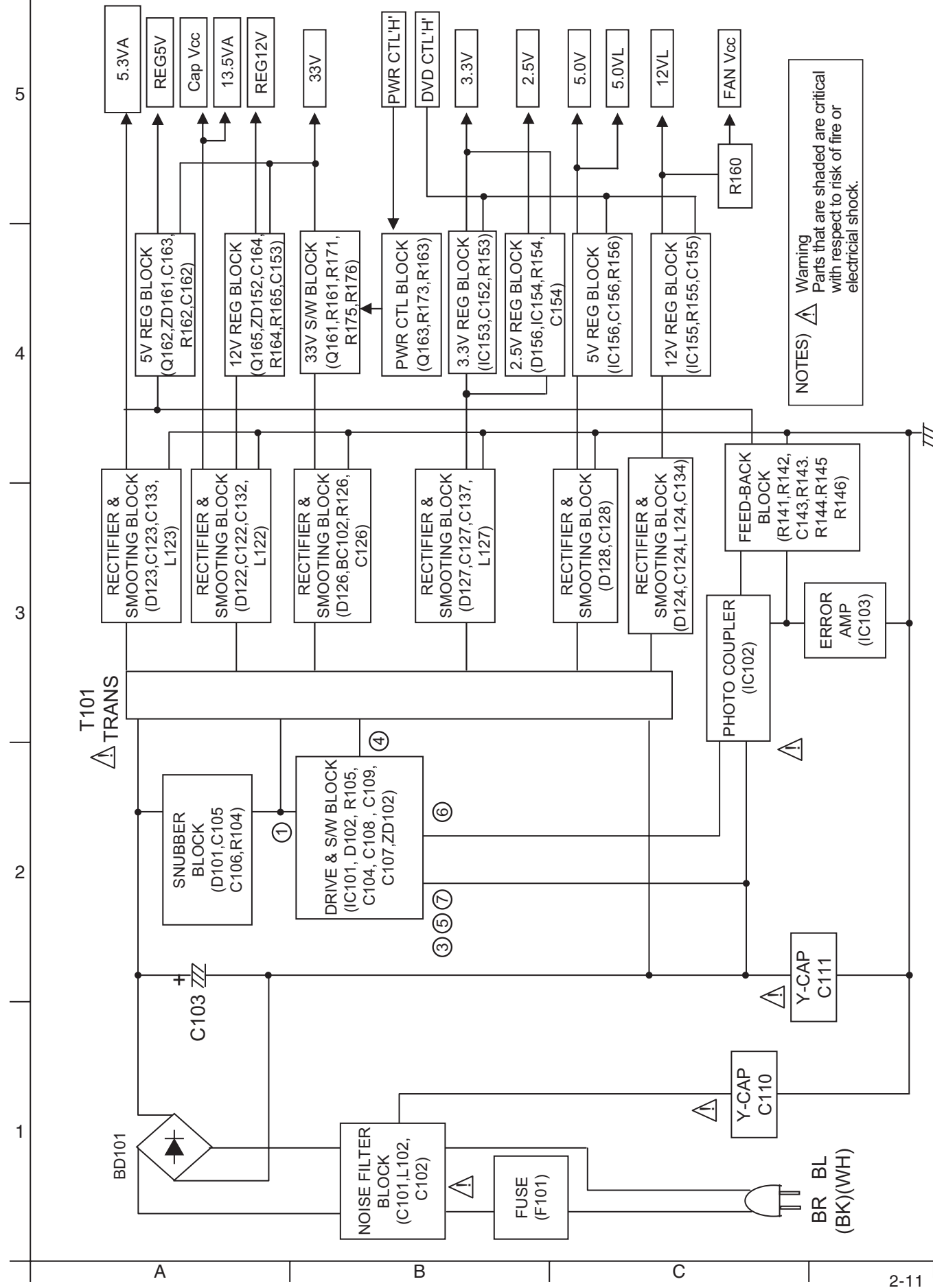
■ Video IN/OUT section



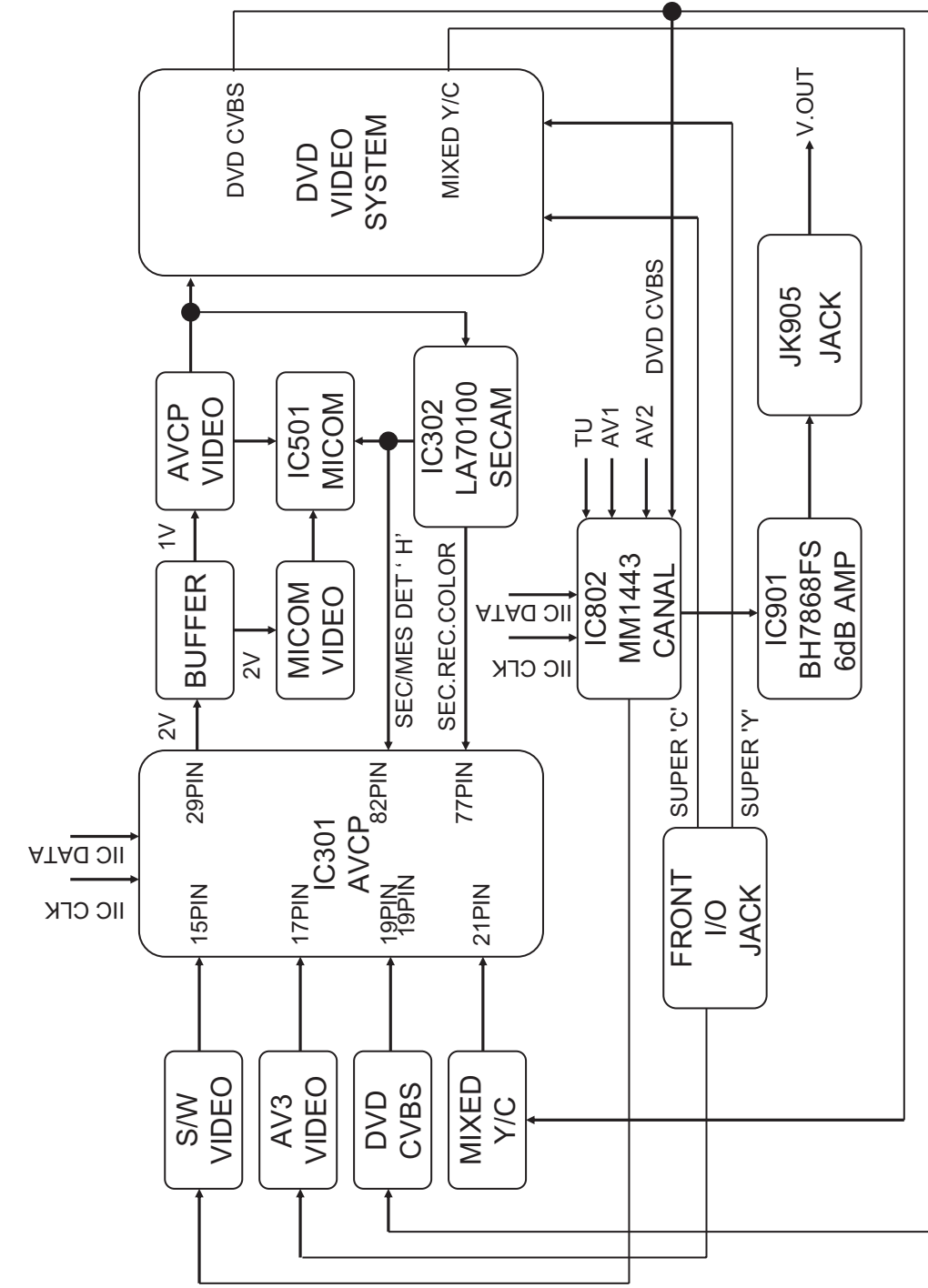
■ DV1394 IN/OUT section

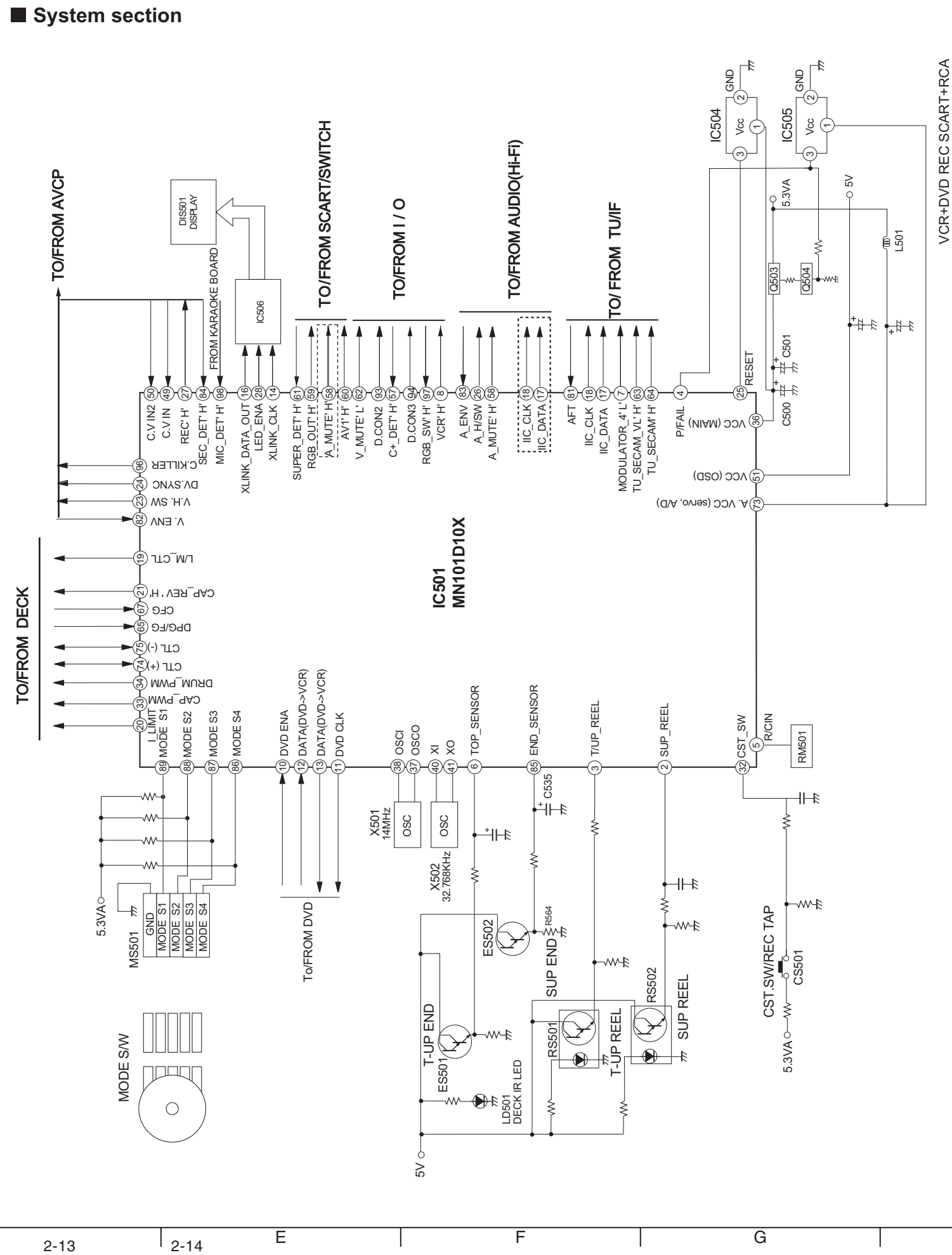
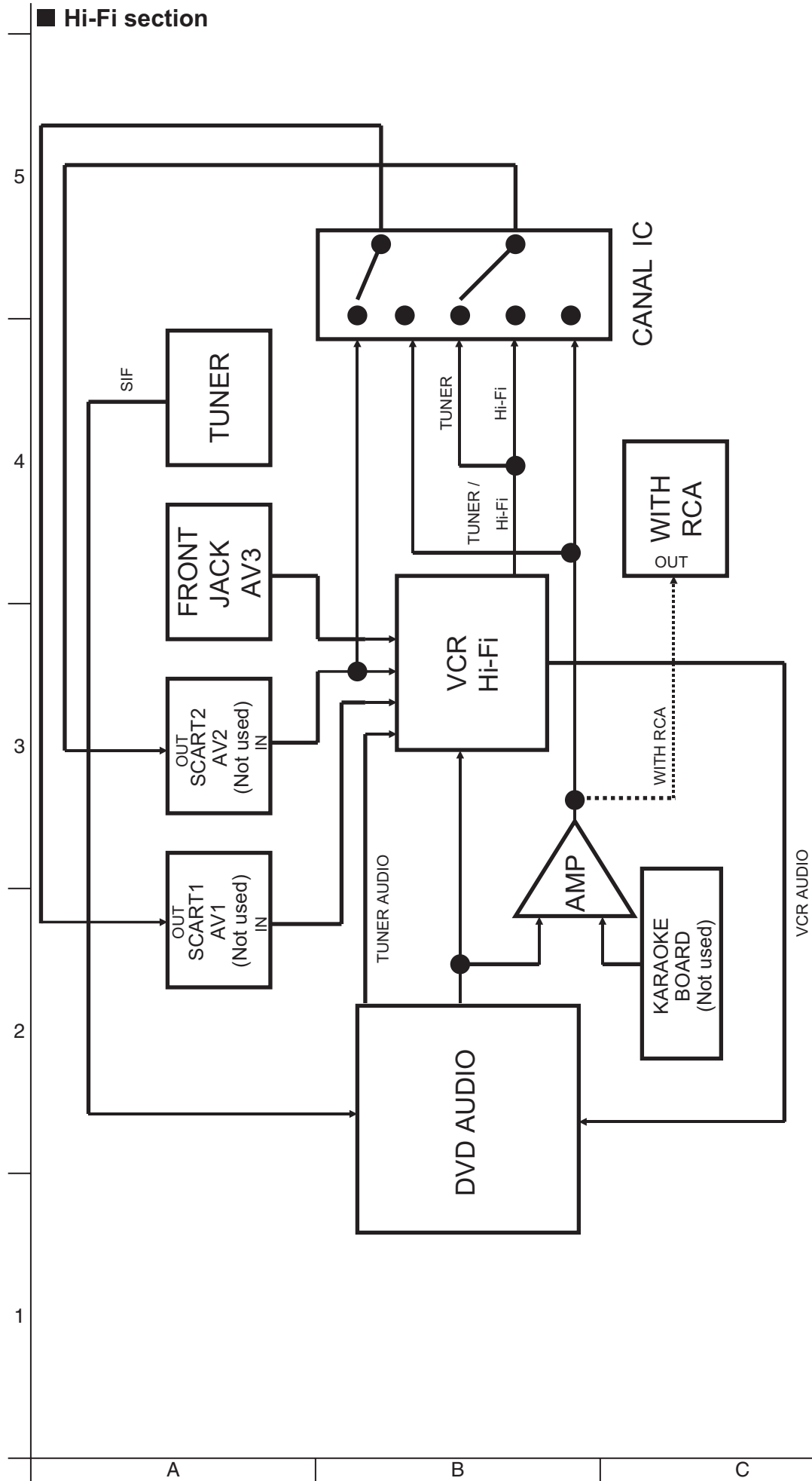


■ Power (SMPS) section

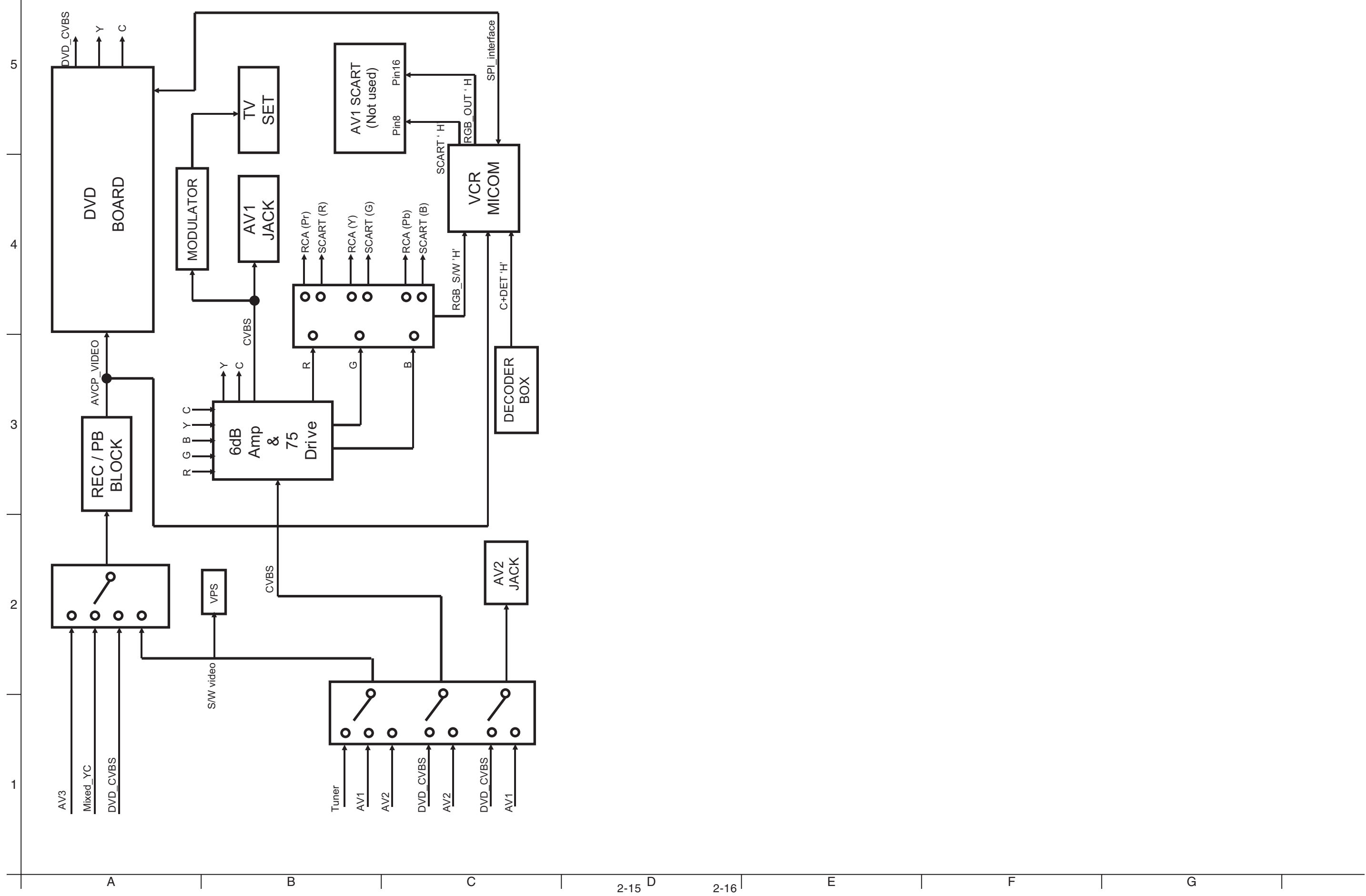


■ **Y/C section**





■ SCART and Switch section



Standard schematic diagrams

Power (SMPS) section

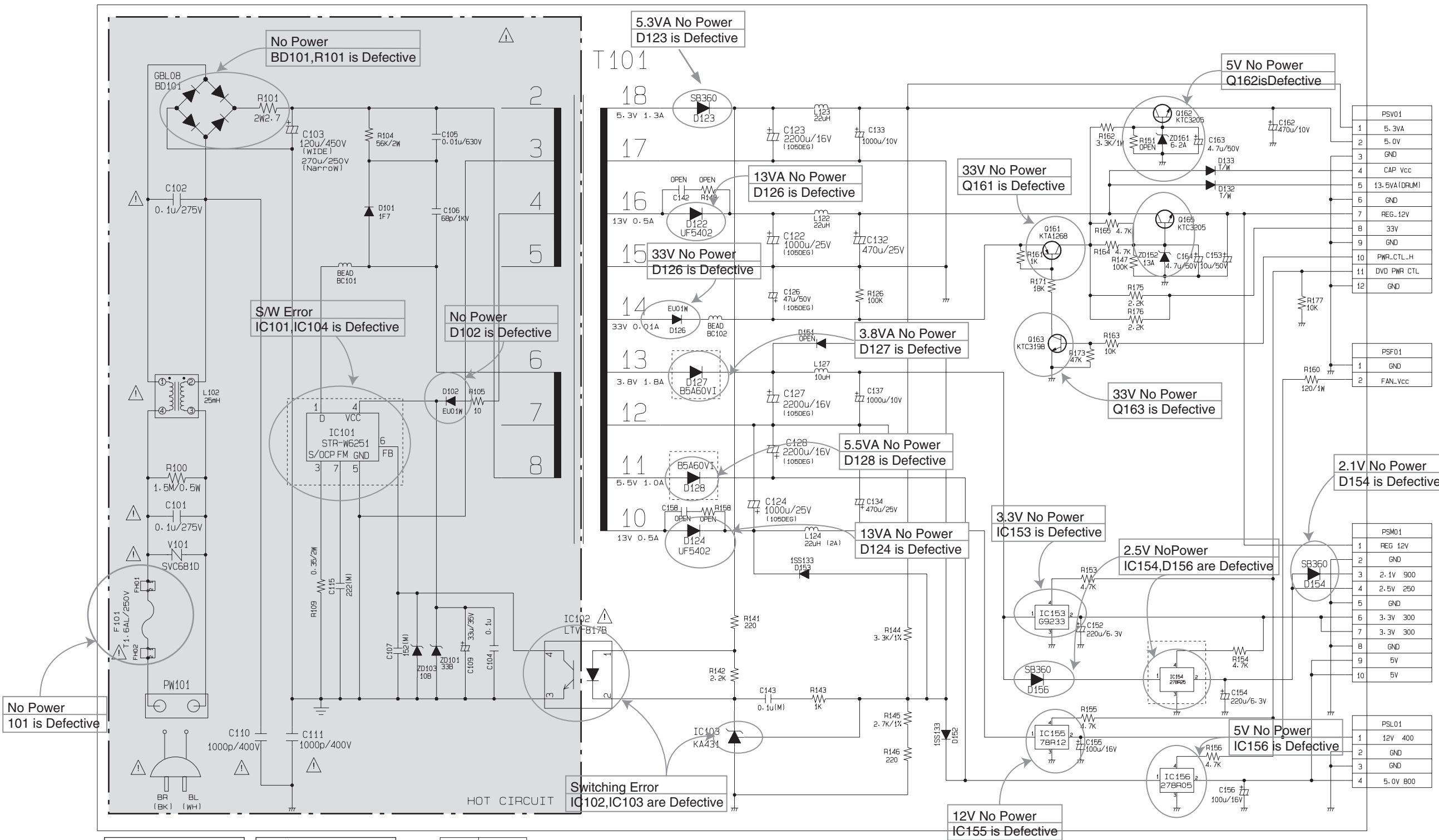
IMPORTANT SAFETY NOTICE

WHEN SERVICING THIS CHASSIS, UNDER NO CIRCUMSTANCES SHOULD THE ORIGINAL DESIGN BE MODIFIED OR ALTERED WITHOUT PERMISSION FROM THE LG ELECTRONICS CORPORATION. ALL COMPONENTS SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIRCUIT.

CUIT. SPECIAL COMPONENTS ARE SHADED ON THE SCHEMATIC FOR EASY IDENTIFICATION. THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY, IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SET IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

NOTE :

- 1. Shaded(■) parts are critical for safety. Replace only with specified part number.
- 2. Voltages are DC-measured with a digital voltmeter during Play mode.



NOTES) Symbol denotes AC ground.
Symbol denotes DC chassis ground.

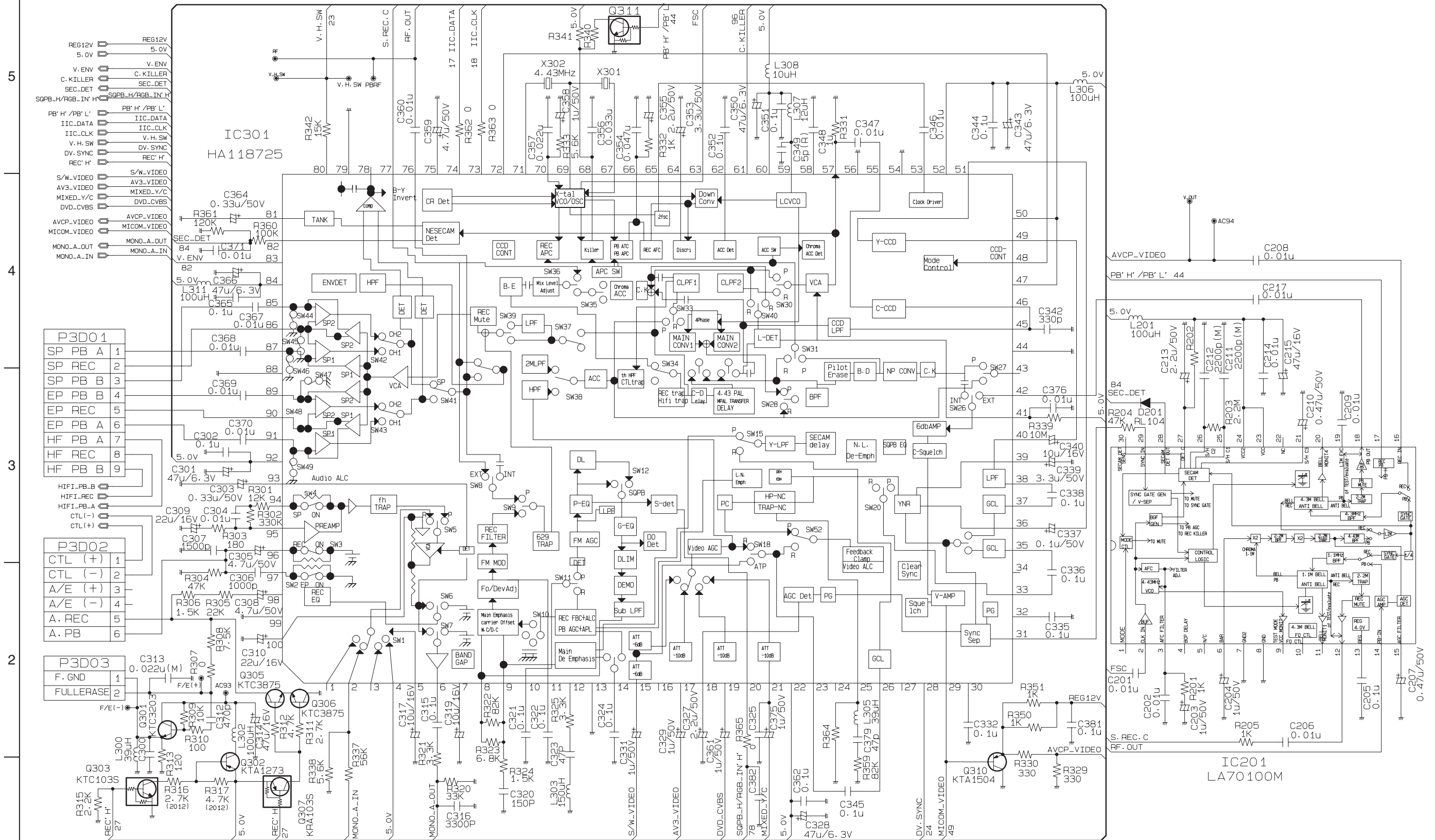
NOTE) Warning
Parts that are shaded are critical
With respect to risk of fire or
electrical shock.

	C103
WIDE	120u/450V
S. M. P. C. A.	
C15: INDO.	
NARROW	270u/250V

1



■ A/V section



	IC301	X301	X302	L305	Q311	R339	R340	R341	R359	R360	R361	C342	C354	C364	R364	C379	R365
PAL	F	X	4. 43M	39uH	X	10M	X	X	82K	100K	120K	330P	0. 047u	0. 33u/50V	X	47P	X
NTSC	NF	3. 58M	X	X	X	6. 8M	X	X	X	X	X	330P	4700P	X	X	X	O
M-PAL	LF	3. 58M	3. 57M	39uH	C103S	10M	1M	2. 2M	82K	X	X	560P	0. 047u	X	X	47P	O

Hi-Fi section

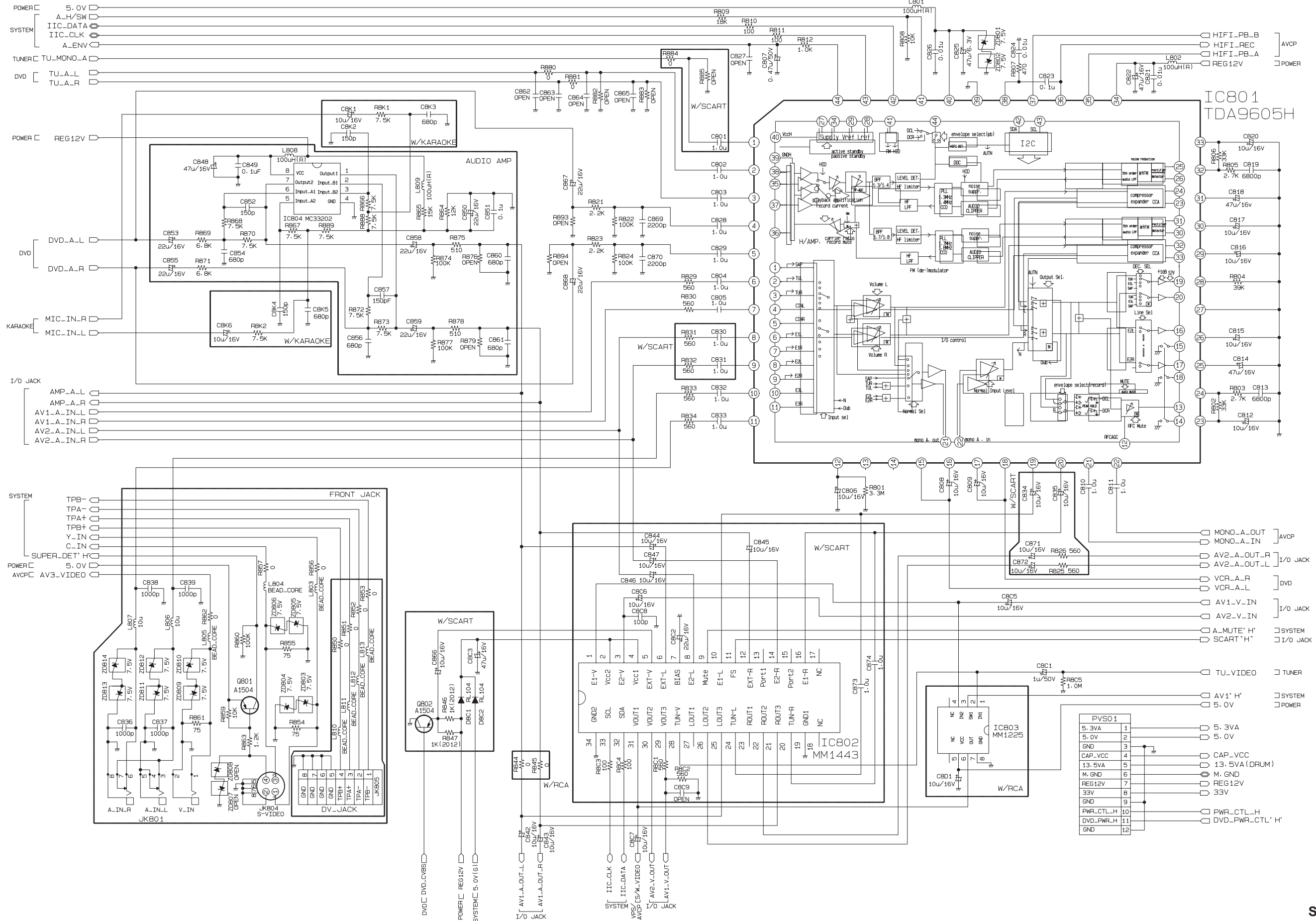
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4

3

2

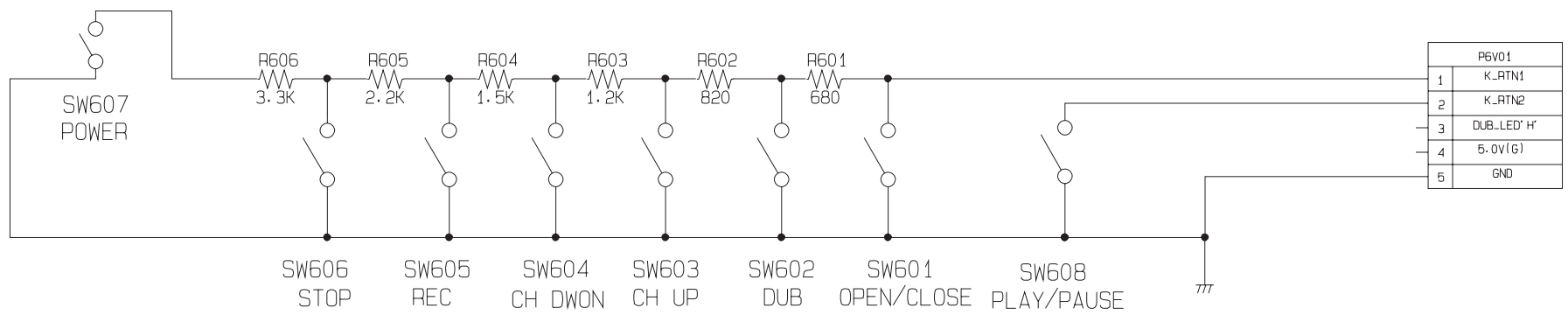
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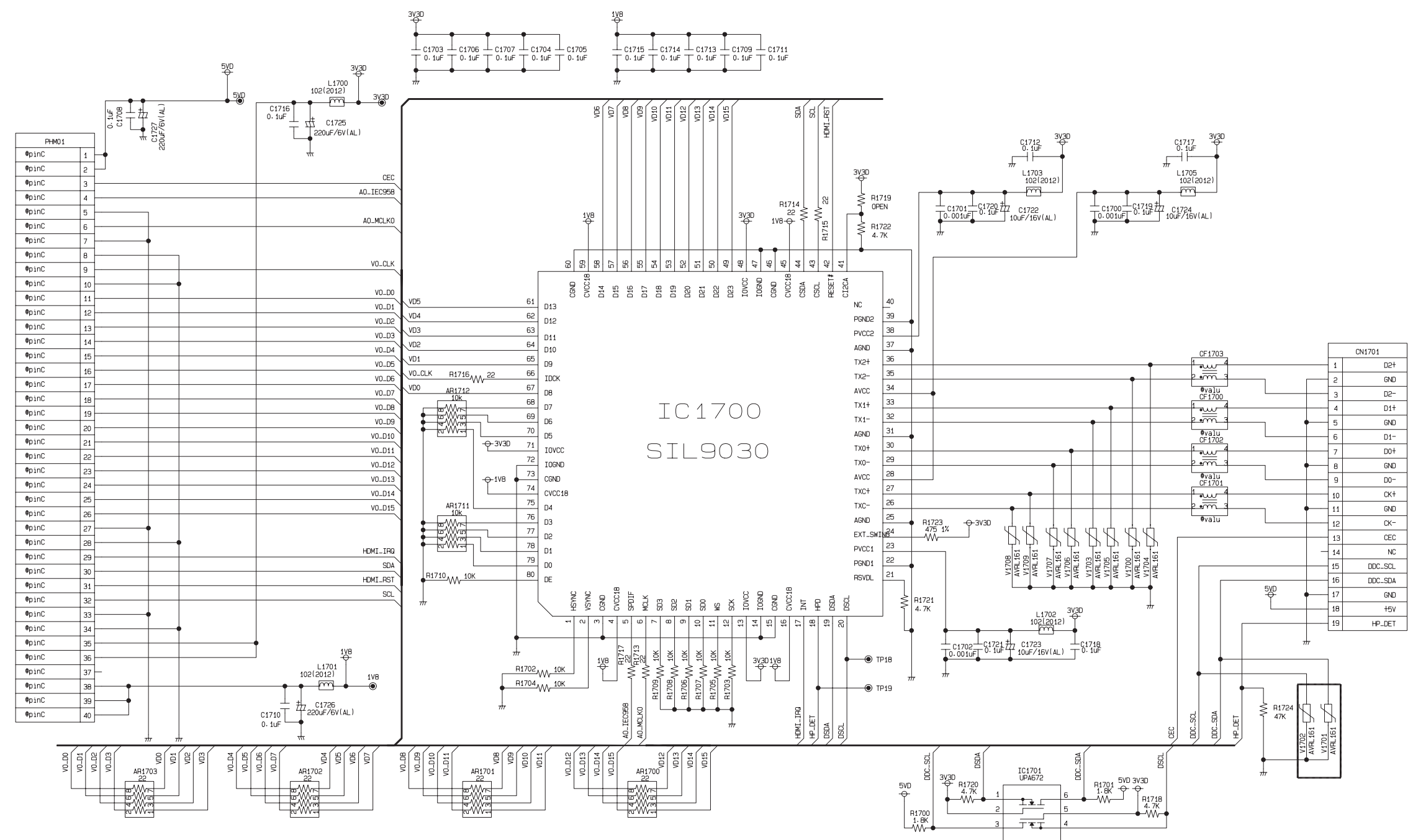
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■ Key section



■ HDMI section



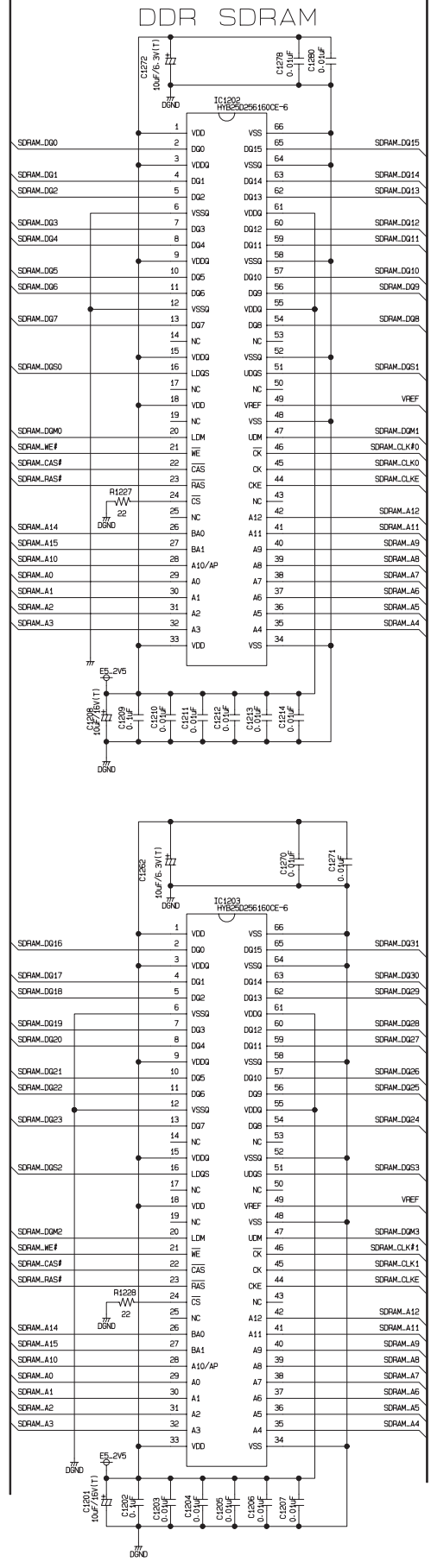
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3



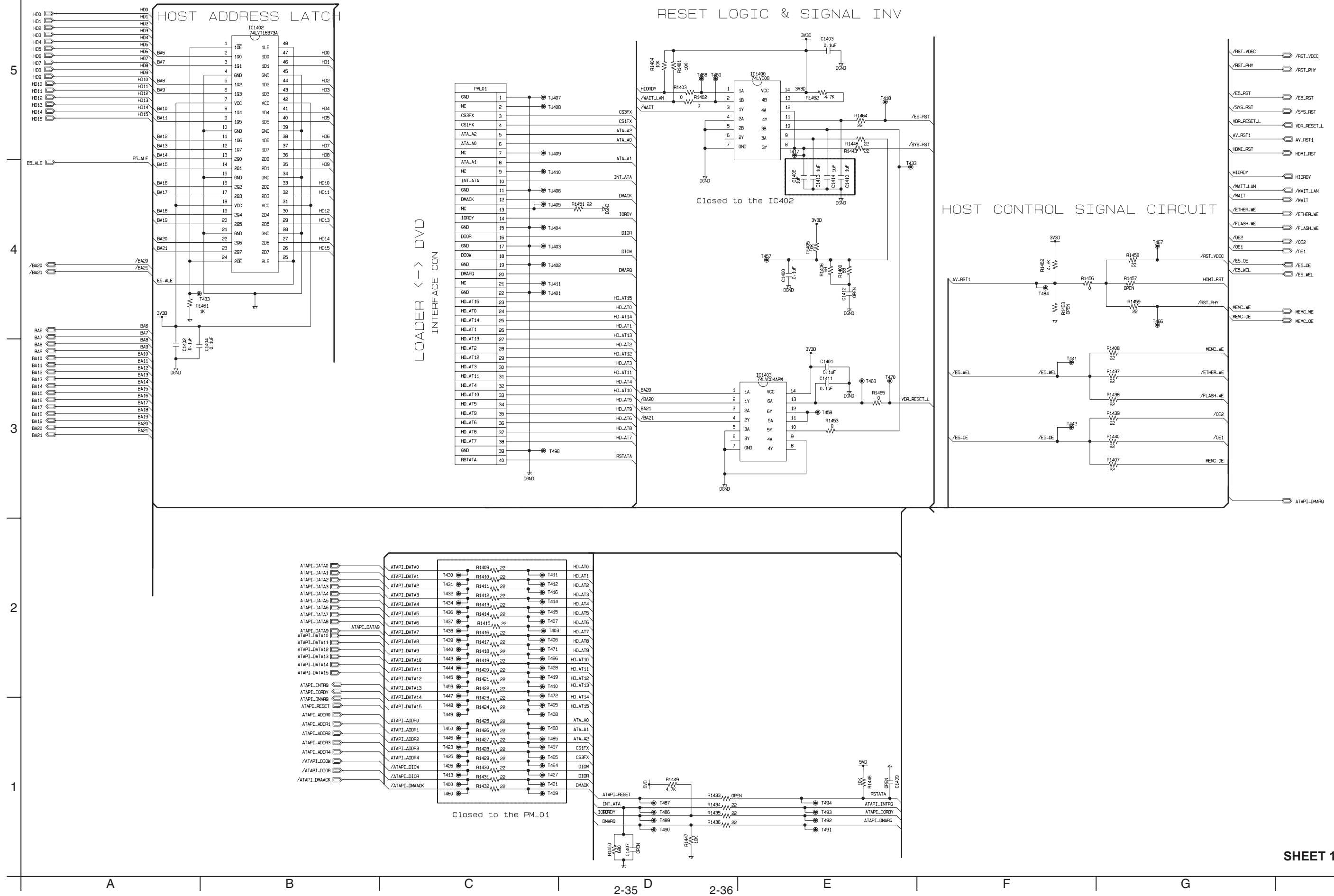
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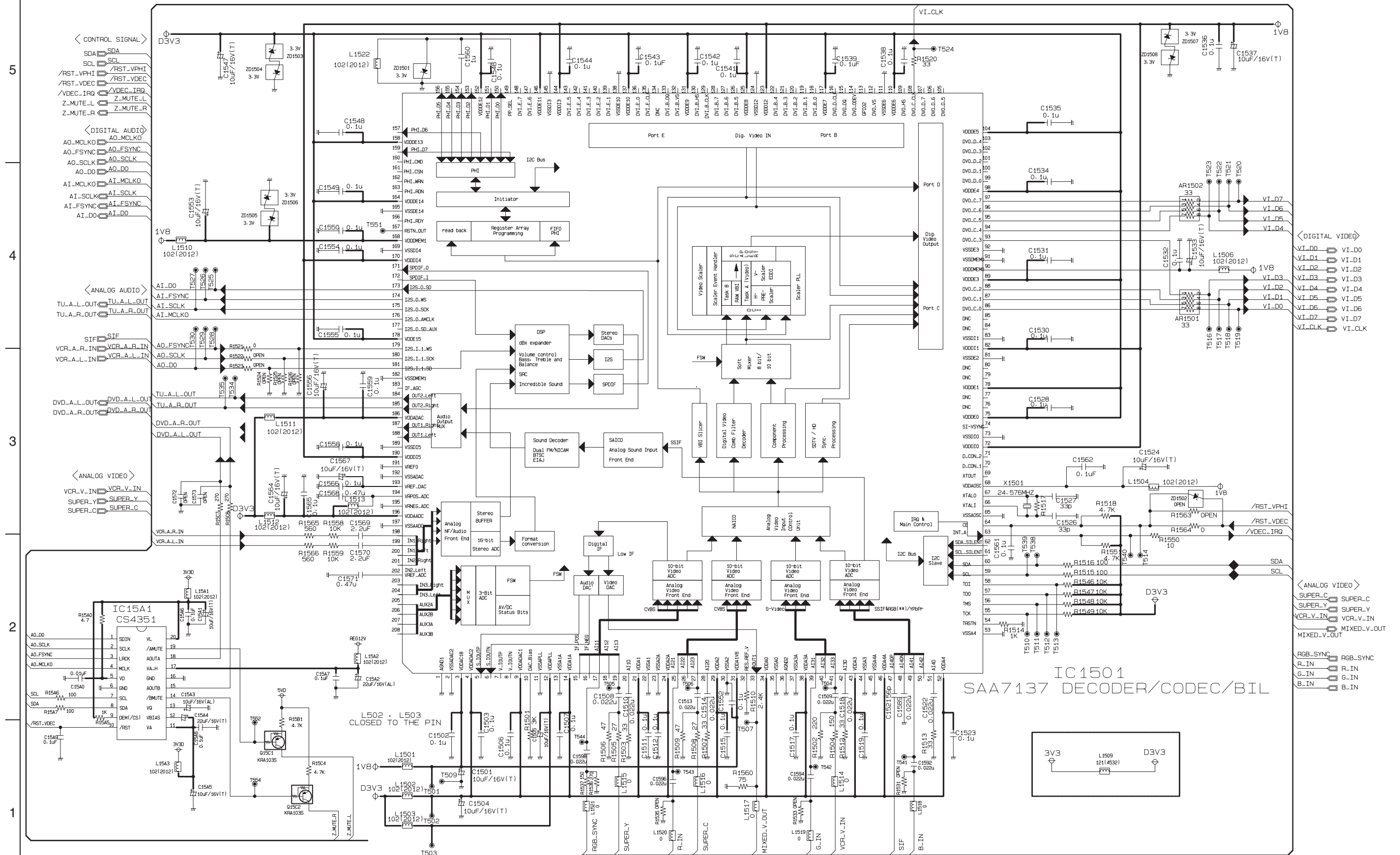
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■ RST, CONTROL/STATUS_REG., ATAPI, HOST_CPLD, LATCH section



Video/Audio codec, MSP section

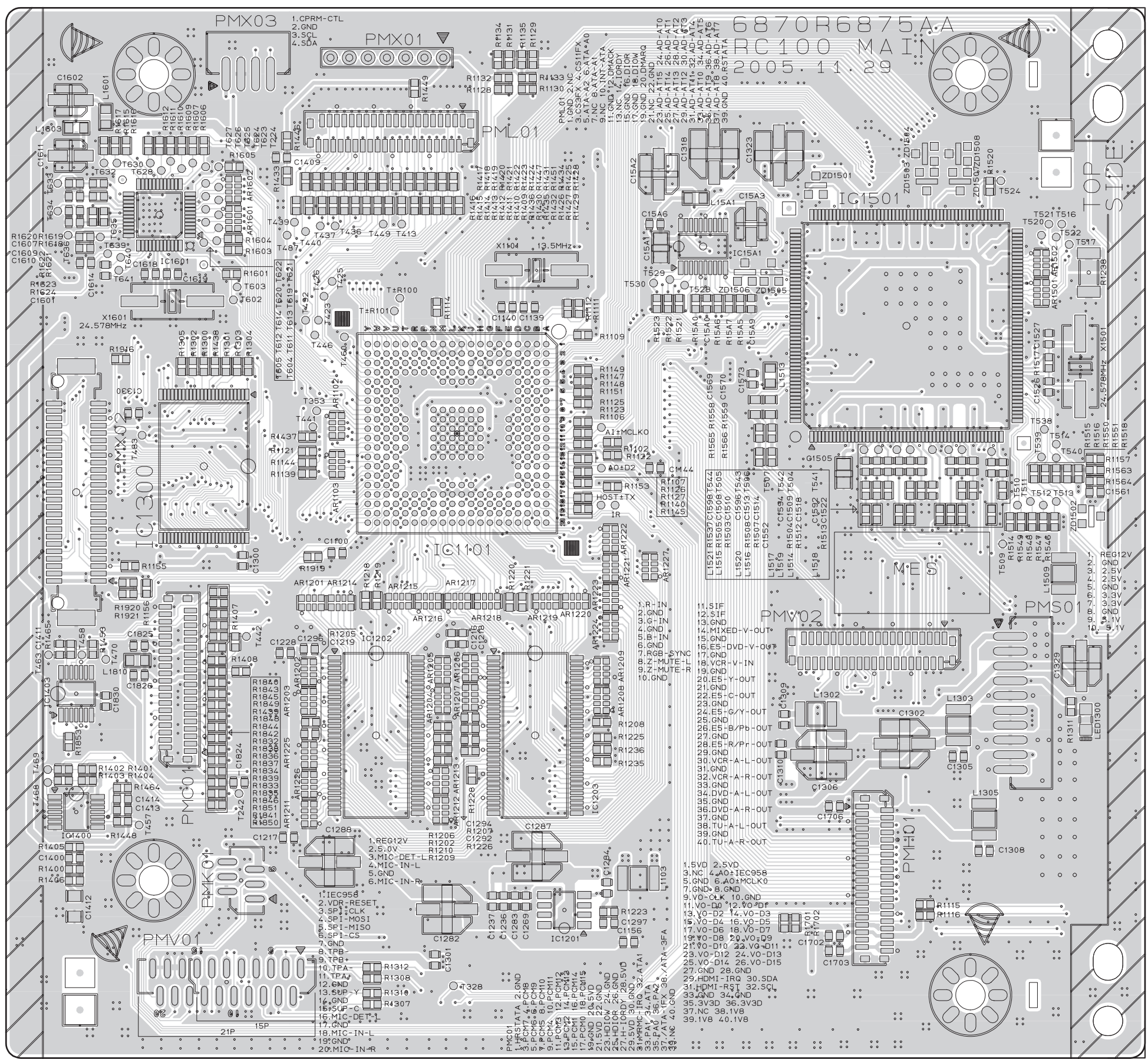


5



Printed circuit boards

■ VDR board (Top side) <06>





3

2

1

B

C

D

2-45

2-46

E

F

G

5



3

2

1

A

B

C

2-47 D

2-48

E

F

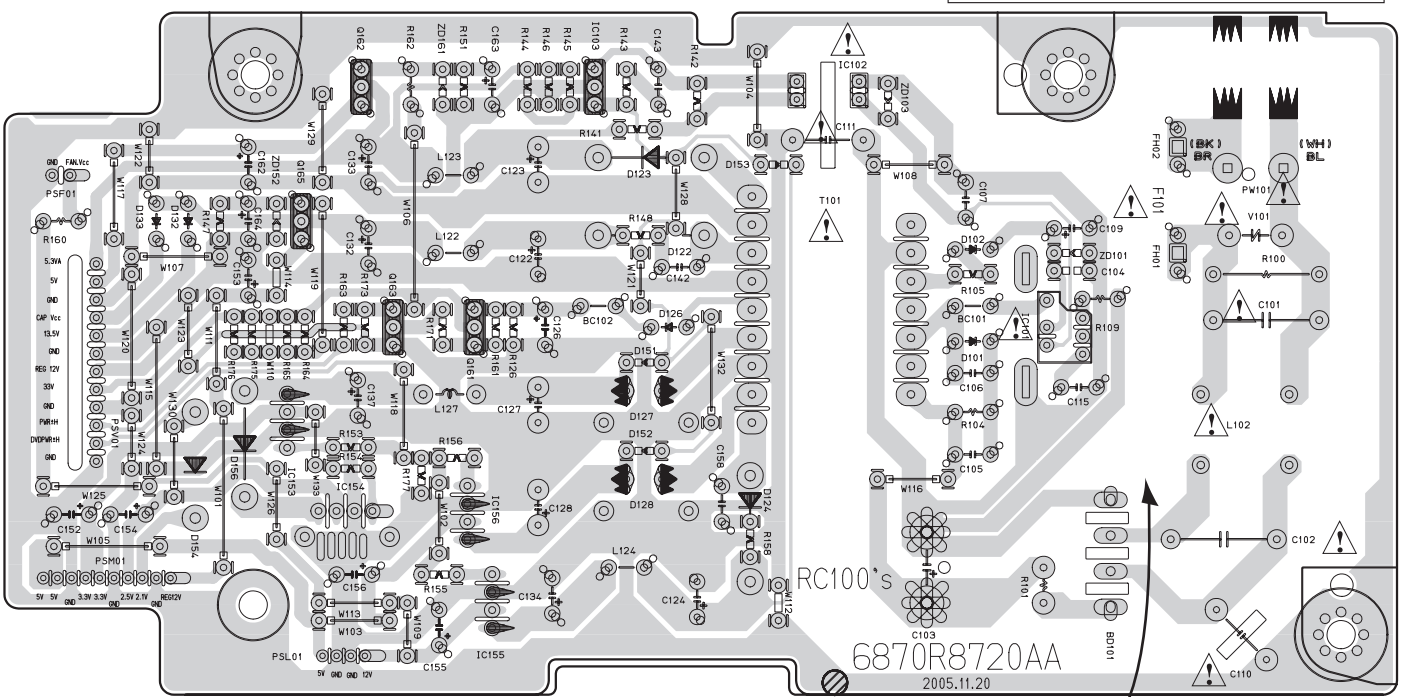
G

■ SMPS board <01>



CAUTION :
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATED FUSE(S).
ATTENTION :
REPLACER PAR DES FUSIBLE DE MEME TYPE.

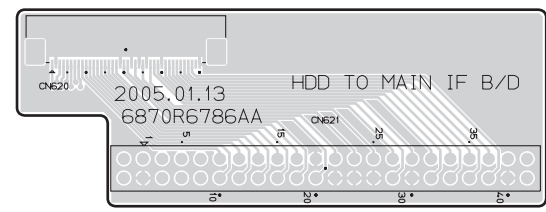
NOTES) ⚠ Warning
Parts that are shaded are critical
with respect to risk of fire or
electrical shock.



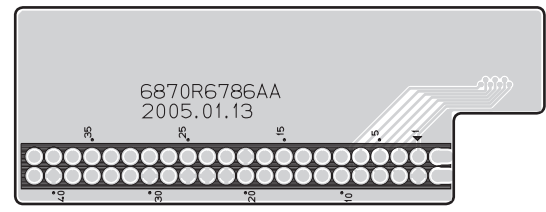
DANGEROUS VOLTAGE

■ Junction board <05>

(Top side)

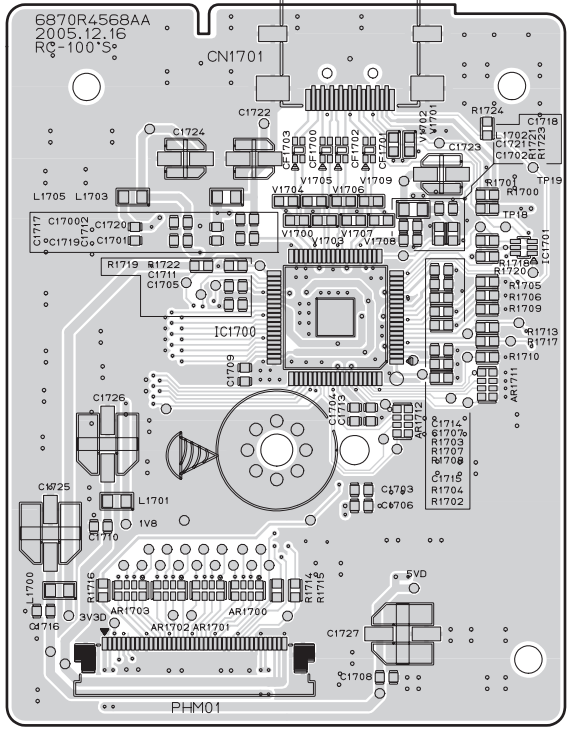


(Bottom side)

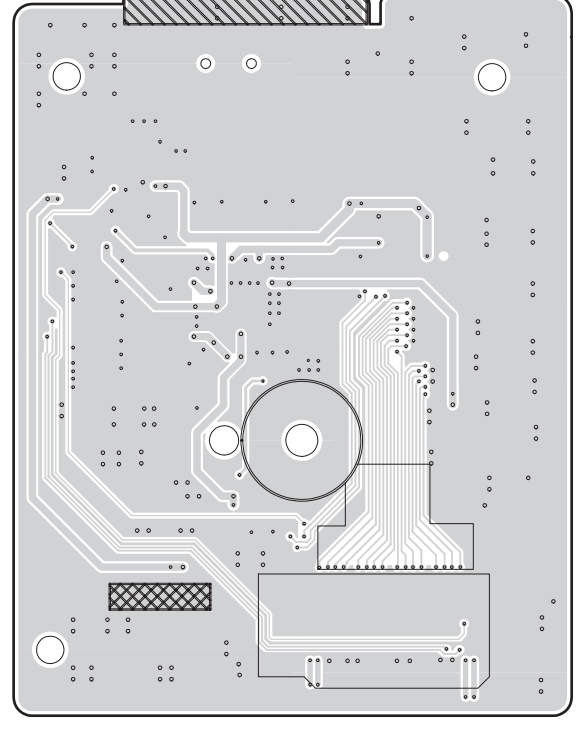


■ HDMI board <04>

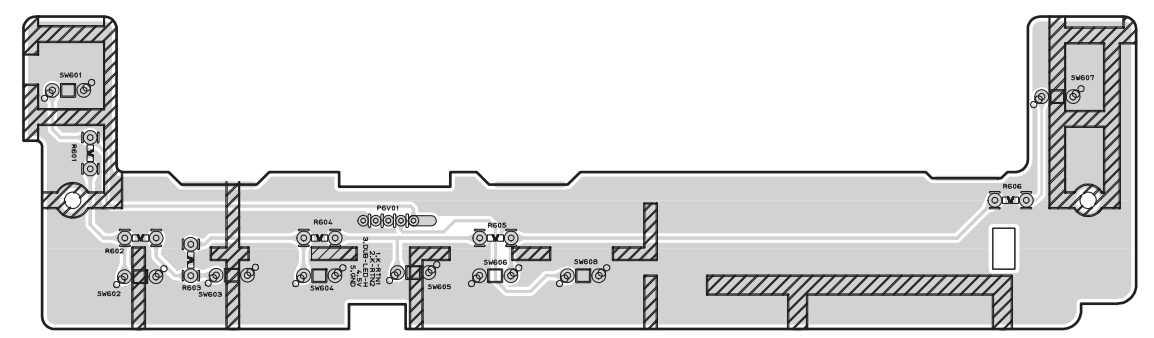
(Top side)



(Bottom side)



■ Key board <03>



■ Voltage charts (VCR board)

MODE PIN NO.	EE	PLAY
IC 301		
1	20m	100m
2	20m	100m
3	20m	100m
4	1.95V	4.88V
5	1.94V	1.88V
6	2.6V	3.12V
7	2.8V	2.74V
8	2.5V	1.7V
9	2.04V	1.3V
10	1.8V	1.88V
11	2V	1.8V
12	1.6V	0.72V
13	0V	0V
14	1.26V	1.3V
15	3.04V	3.36V
16	0V	4.78V
17	2.38V	2.32V
18	1.88V	2.84V
19	3.02V	2.94V
20	0V	0V
21	2.38V	2.34V
22	4.88V	4.82V
23	2.64V	2.24V
24	0V	0V
25	2.08V	2.14V
26	3.08V	2.66V
27	0V	0V
28	150m	140m
29	3.88V	3.18V
30	2.08V	2.74V
31	4.74V	4.72m
32	2.08V	2.12V
33	2.42V	2.26V
34	1.58V	1.54V
35	3.3V	3.36V
36	2.5V	2.32V
37	3.1V	3.18V
38	2.6V	2.28V
39	1.4V	1.42V
40	2.3V	2.16V
41	1.08V	1.58V
42	1.82V	1.84V
43	2.04V	2.28V
44	0V	0V
45	2.88V	3.04V
46	2V	2.98V
47	4.82V	4.78V
48	120mV	2.4V
49	3.48V	1.94V
50	4.78V	4.74V
51	2.08V	1.98V
52	4.8V	4.7V
53	2.6V	2.8V
54	0V	0V

MODE PIN NO.	EE	PLAY
55	1.3V	1.48V
56	0V	0V
57	2.08V	2.18V
58	1.78V	2.14V
59	4.6V	4.62V
60	4.62V	4.62V
61	3.82V	0V
62	2.2V	2.08V
63	2.32V	2.32V
64	1.62V	1.64V
65	1.62V	2.28V
66	2.3V	1.68V
67	0V	0V
68	1.12V	1.14V
69	2.3V	2.38V
70	0.82V	0.82V
71	2.2V	2.18V
72	100m	2.42V
73	4.96V	4.98V
74	4.96V	4.98V
75	2.56V	2.54V
76	2.34V	2.18V
77	2.68V	2.64V
78	0V	4.72
79	0V	0V
80	2.16V	2.68V
81	4.06V	20m
82	0V	0V
83	120m	2.72V
84	2.76V	4.74V
85	2.114V	2.42V
86	2.04V	2.08V
87	2.04V	2.08V
88	0V	0V
89	2.14V	2.08V
90	2.14V	2.08V
91	2.14V	2.08V
92	4.88V	4.89V
93	300m	260m
94	2.48V	2.4V
95	2.48V	1.86V
96	2.06V	1.86V
97	0V	0V
98	2.30V	2.46V
99	0V	20m
100	2.48V	2.42V
IC 501		
1	0 V	0V
2	4.52V	4.82V
3	4.84V	4.84V
4	4.64V	4.58V
5	4.56V	4.56V
6	80m	60m
7	0 V	0V
8	4.98V	4.98V

MODE PIN NO.	EE	PLAY
9	4.98V	5.3V
10	4.8V	4.8V
11	4.82V	4.82V
12	4.72V	4.82V
13	4.92V	4.92V
14	5.02V	5.02V
15	0V	0V
16	4.98V	4.98V
17	5.04V	5.04V
18	4.98V	9.98V
19	2.46V	2.46V
20	3.36V	3.36V
21	0V	0V
22	0V	0V
23	4.96V	4.96V
24	120m	140m
25	4.94V	4.94V
26	4.92V	4.92V
27	20m	20m
28	5.02V	5.02
29	4.98V	4.98V
30	4.84V	4.84V
31	5V	5V
32	0V	0V
33	4.98V	4.94V
34	0V	5V
35	5.02V	0V
36	3.16V	4.94V
37	5.7V	Da/Clk(5.5)
38	0V	5.7V
39	520m	0V
40	4.84V	520m
41	4.83V	Da/Clk(5.62)
42	4.86V	4.86V
43	0V	0V
44	5.02V	5V
45	0V	0V
46	3.94V	3.94V
47	2.88V	2.88V
48	0V	0V
49	0.98V	2.94V
50	1.84V	1.94V
51	0.98V	4.78V
52	3.28V	3.28V
53	2.38V	2.38V
54	2.52V	2.54V
55	1.88V	1.88V
56	0V	0V
57	0V	0V
58	120m	120m
59	4.92V	4.92V
60	4.92V	4.92V
61	0V	0V
62	4.82V	4.82V
63	3.98V	3.98V

MODE PIN NO.	EE	PLAY
64	0V	0V
65	2.36V	2.63V
66	0V	0V
67	4.68V	9.68V
68	0V	0V
69	2.48V	2.48V
70	2.48V	2.48V
71	0V	0V
72	2.48V	4.98V
73	4.92V	4.92V
74	0V	0V
75	2.52V	2.42V
76	2.42V	2.48V
77	80m	80m
78	0V	0V
79	4.02V	4.96V
80	4.96V	4.96V
81	2.8V	280m
82	1V	2.62V
83	120m	3.24V
84	0V	1.96V
85	0V	0V
86	4.98V	4.9V
87	4.98V	4.98V
88	5V	5V
89	0V	0V
90	4.88V	4.88V
91	0V	0V
92	0V	0V
93	5.04V	5.04V
94	4.88V	0V
95	4.98V	4.98V
96	0V	0V
97	0V	0V
98	4.98V	4.98V
99	20m	4.98V
100	0V	0V
IC 801		
1	3.28V	3.24V
2	3.28V	3.28V
3	3.32V	3.26V
4	3.28V	3.92V
5	3.28V	3.92V
6	3.28V	3.26
7	3.28V	3.74V
8	3.28V	3.24V
9	3.28V	3.24V
10	3.28V	3.24V
11	3.28V	3.26V
12	0V	0V
13	3.78V	4.52V
14	0V	0V
15	0V	640m
16	5.82V	6.64V
17	5.82V	6.68V

[illegible]

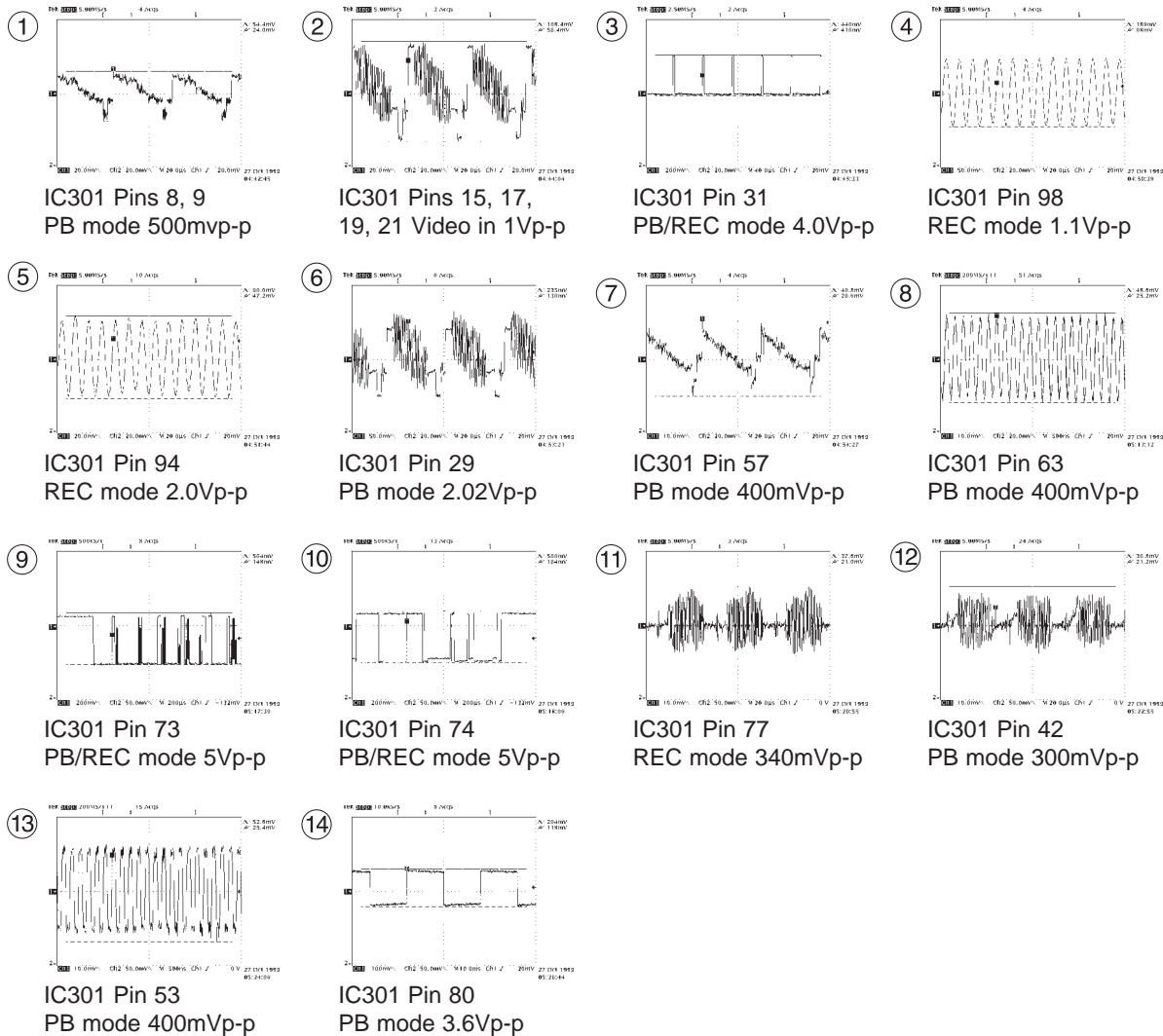
SECTION NO.	POWER ON			PB		
	E	C	B	E	C	B
SYSTEM						
Q501	0.010V	0.020V	4.800V	0.010V	4.950V	4.770V
Q502	0.010V	0.020V	4.800V	0.010V	4.970V	4.770V
Q503	4.510V	5.190V	5.200V	4.500V	5.180V	5.190V
Q504	0.010V	0.020V	0.690V	0.010V	0.020V	0.690V
Q509	2.360V	0.010V	1.750V	3.060V	0.010V	2.410V
Q510	2.350V	0.010V	1.720V	3.010V	0.010V	2.410V
AVCP						
Q301	0.170V	0.170V	0.000V	0.160V	0.160V	0.000V
Q302	4.980V	0.170V	4.980V	4.970V	0.160V	4.970V
Q303	0.010V	4.960V	0.040V	0.010V	4.960V	0.030V
Q305	0.010V	0.010V	0.710V	0.010V	0.010V	0.710V
Q306	0.010V	0.010V	0.720V	0.010V	0.010V	0.720V
Q307	4.990V	4.940V	0.040V	4.960V	4.910V	0.030V
Q310	2.650V	1.710V	1.980V	3.080V	0.010V	2.410V
HI-FI/CANAL/F.JACK/AMP						
Q801	4.980V	0.010V	4.980V	4.960V	0.010V	4.950V
JACK						
Q901	5.180V	0.000V	4.610V	5.170V	0.000V	4.600V
Q902	0.000V	0.040V	0.000V	0.000V	0.050V	0.000V
Q903	0.000V	0.050V	0.000V	0.000V	0.100V	0.000V
Q904	0.000V	4.610V	0.000V	0.000V	4.600V	0.000V
Q905	2.330V	0.010V	1.650V	2.330V	.010V	1.690V
Q906	0.000V	4.610V	0.000V	0.000V	4.600V	0.000V
Q907	5.180V	0.000V	4.610V	5.170V	0.000V	4.600V
Q910	0.000V	5.100V	0.000V	0.000V	5.090V	0.000V
Q911	0.000V	0.000V	0.000V	0.000V	0.000V	0.000V
Q912	0.000V	0.000V	0.000V	0.000V	0.000V	0.000V

■ Voltage charts (VDR board)

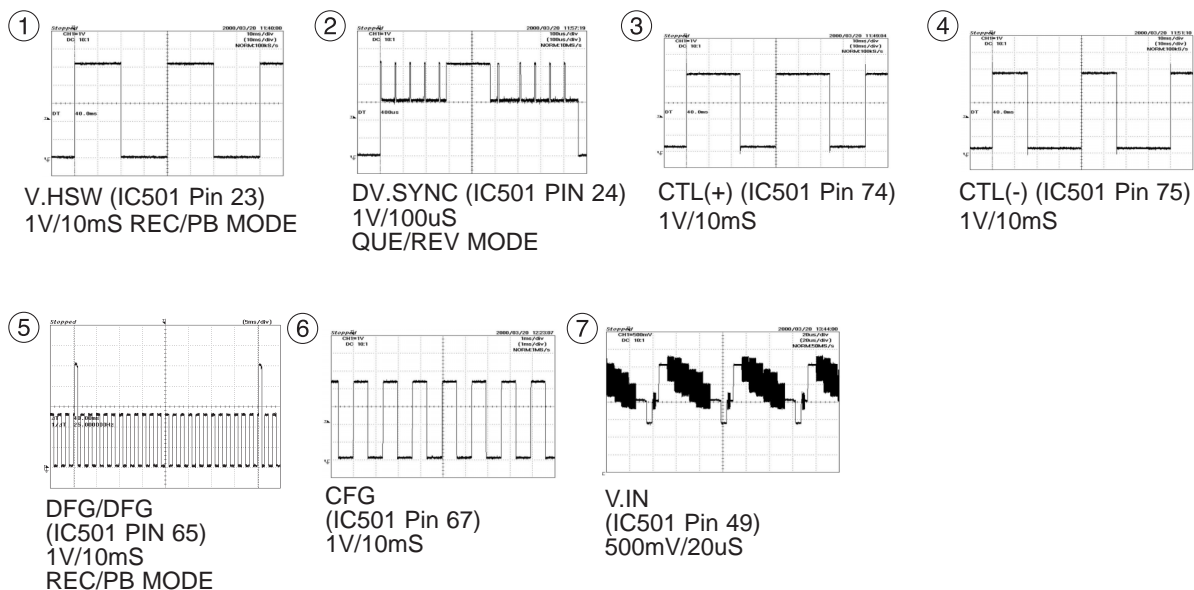
MODE PIN NO.	EE	PB	REC	MODE PIN NO.	EE	PB	REC	MODE PIN NO.	EE	PB	REC
IC1201				16	0	0.04	0.04	22	3.04	3.2	3.25
1	0	0	0	17	0	0.04	0.04	23	0	0	0
2	0	0	0	18	0	3.29	3.29	24	0	0	0
3	1.02	1.02	1.23	19	0	0.04	0.04	25	3.24	3.24	3.26
4	1.02	1.01	1.23	20	0	0.04	0.04	26	0	0	0
5	2.37	2.48	2.47	21	0	0	0	27	0	0	1.83
6	2.34	2.48	2.47	22	0	0.04	0.04	28	0	0	1.83
7	2.34	2.48	2.47	23	0	3.29	3.29	29	3.12	3.08	1.81
8	1.08	1.22	1.22	24	0	0	0	30	3.12	3.12	1.81
IC1301				25	0	0.01	0.01	31	3.12	3.08	1.82
1	0	0	0	26	0	0	0	32	0	0	0
2	3.14	3.29	3.27	27	0	0	0	33	0	0	0
3	4.88	4.96	4.96	28	0	0	0	34	1.34	1.22	1.21
4	0	0	0	29	0	0	0	35	3.24	1.22	3.26
5	0	0	0	30	0	0	0	36	0	0	0
6	4.88	0.01	0.01	31	0	3.29	3.29	37	3.24	3.1	3.26
7	0	0	0	32	0	0	0	38	0	1.48	0
8	4.94	3.97	3.97	33	0	0	0	39	1.34	3.22	1.4
9	3.22	2.64	2.64	34	0	0	0	40	3.28	3.28	3.26
10	0	0	0	35	0	0	0	41	0	3.22	0
11	4.88	4.2	4.2	36	0	0	0	42	1.48	1.48	1.49
12	4.96	4.3	4.3	37	0	0	0	43	1.48	1.48	1.49
13	0	0	0	38	0	0	0	44	2.96	3.24	3.26
14	4.84	4.97	4.97	39	0	0	0	45	3.24	3.24	3.26
IC1400				40	0	0	0	46	0	0	0
1	3.14	3.29	3.29	41	0	0	0	47	0	0	0
2	3.14	3.32	3.32	42	3.16	3.29	3.29	48	2.88	2.88	0
3	3.14	3.29	3.29	43	0	0	0				
4	0.04	0.04	0	44	0	0	0				
5	0	0.04	0	45	0	0	0				
6	0	0	0	46	0	0	0				
7	0	0	0	47	0	0	0				
8	3.14	3.29	3.29	48	0	0	0				
9	3.14	5.09	5.09	IC1601							
10	3.14	3.29	3.29	1	2.64	2.64	1.62				
11	3.14	3.29	3.29	2	3.42	3.52	1.06				
12	4.98	5.09	5.09	3	3.42	3.48	0.01				
13	3.14	3.29	3.29	4	3.54	3.58	0.5				
14	3.14	3.29	3.29	5	3.56	3.62	0.5				
IC1402				6	0	0	0.02				
1	0	0	0	7	0	0	0.02				
2	0	0.04	0.04	8	0	0	0.02				
3	0	0.04	0.04	9	0	0	0.02				
4	0	0	0	10	0	0	0.02				
5	0	3.29	3.29	11	0	0	0.02				
6	0	3.29	3.29	12	0	0	0				
7	3.14	3.29	3.29	13	3.26	3.27	3.26				
8	0	0.04	0.04	14	0	0	0				
9	0	0.04	0.04	15	0	0	0				
10	0	0	0	16	0	0	0				
11	0	0.04	0.04	17	0	0	0				
12	0	0.04	0.04	18	0	0	0				
13	0	0.04	0.04	19	3.04	3.24	3.23				
14	0	0.04	0.04	20	3.04	3.26	3.11				
15	0	0	0	21	3.04	3.26	3.26				

Waveforms

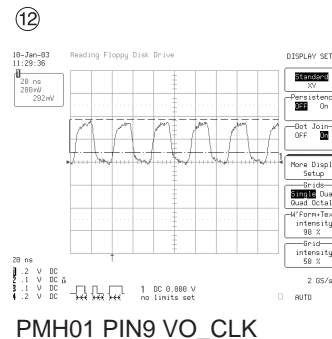
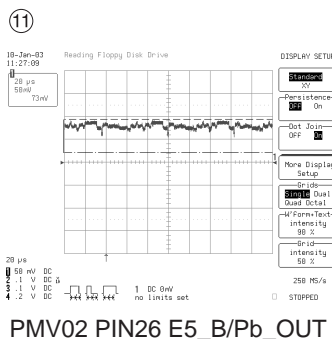
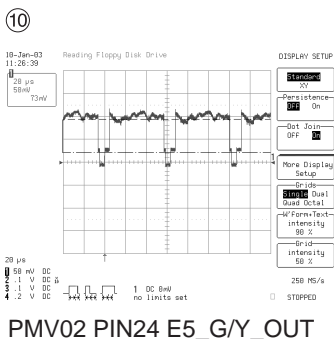
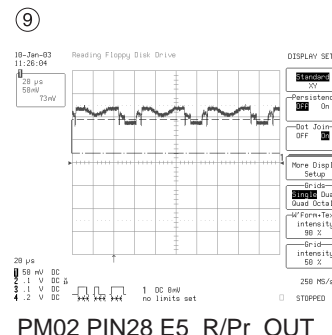
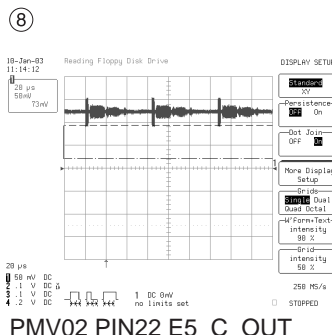
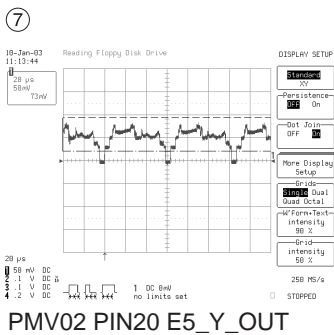
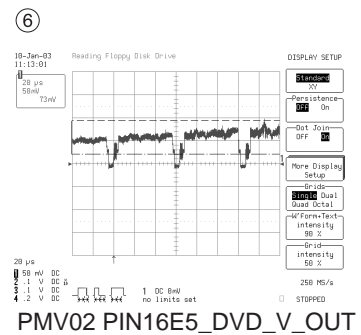
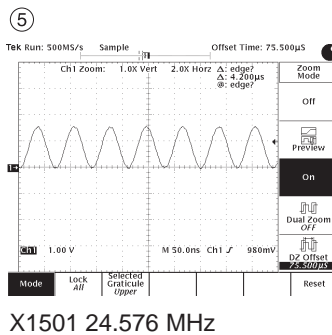
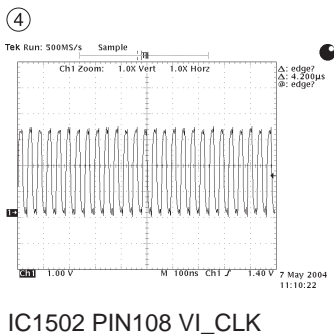
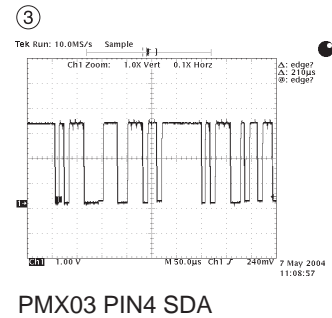
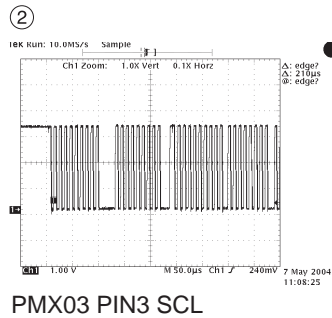
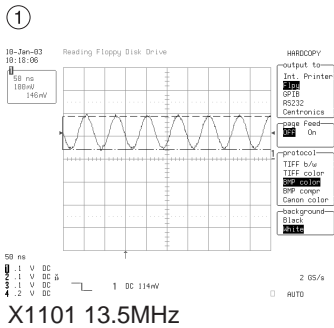
■ VCR Board (IC301)

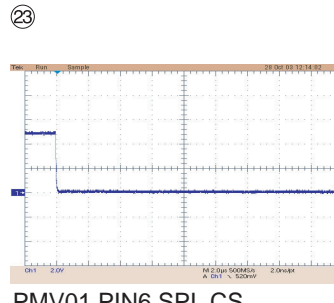
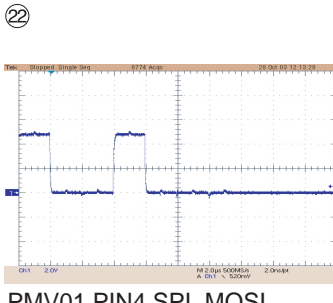
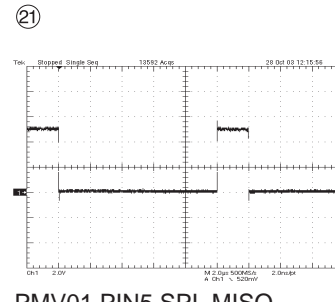
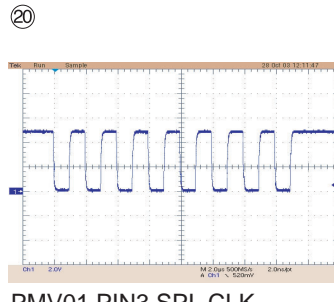
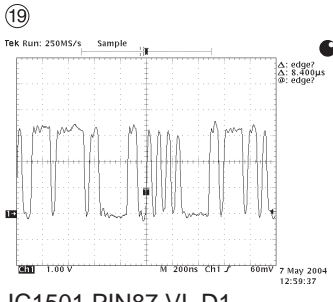
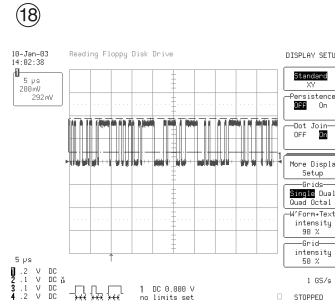
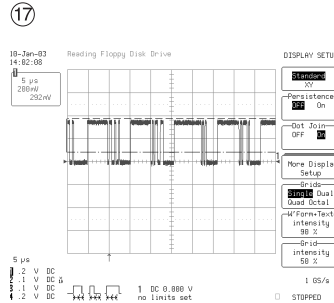
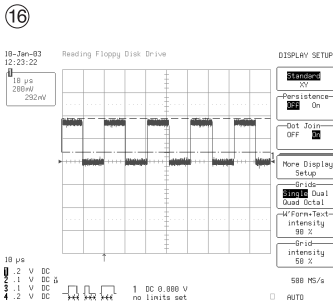
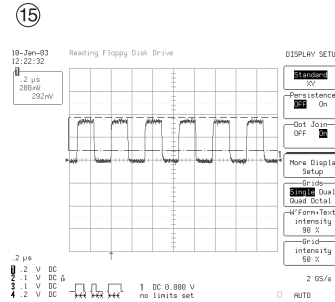
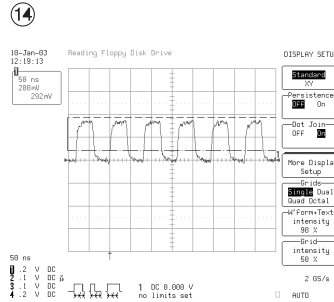
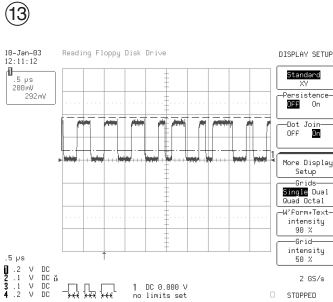


■ VCR Board (IC501)



■ VDR Board







Victor Company of Japan, Limited

DIGITAL VIDEO STORAGE CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan



PARTS LIST

[DR-MV7SUS]

* SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

* BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.

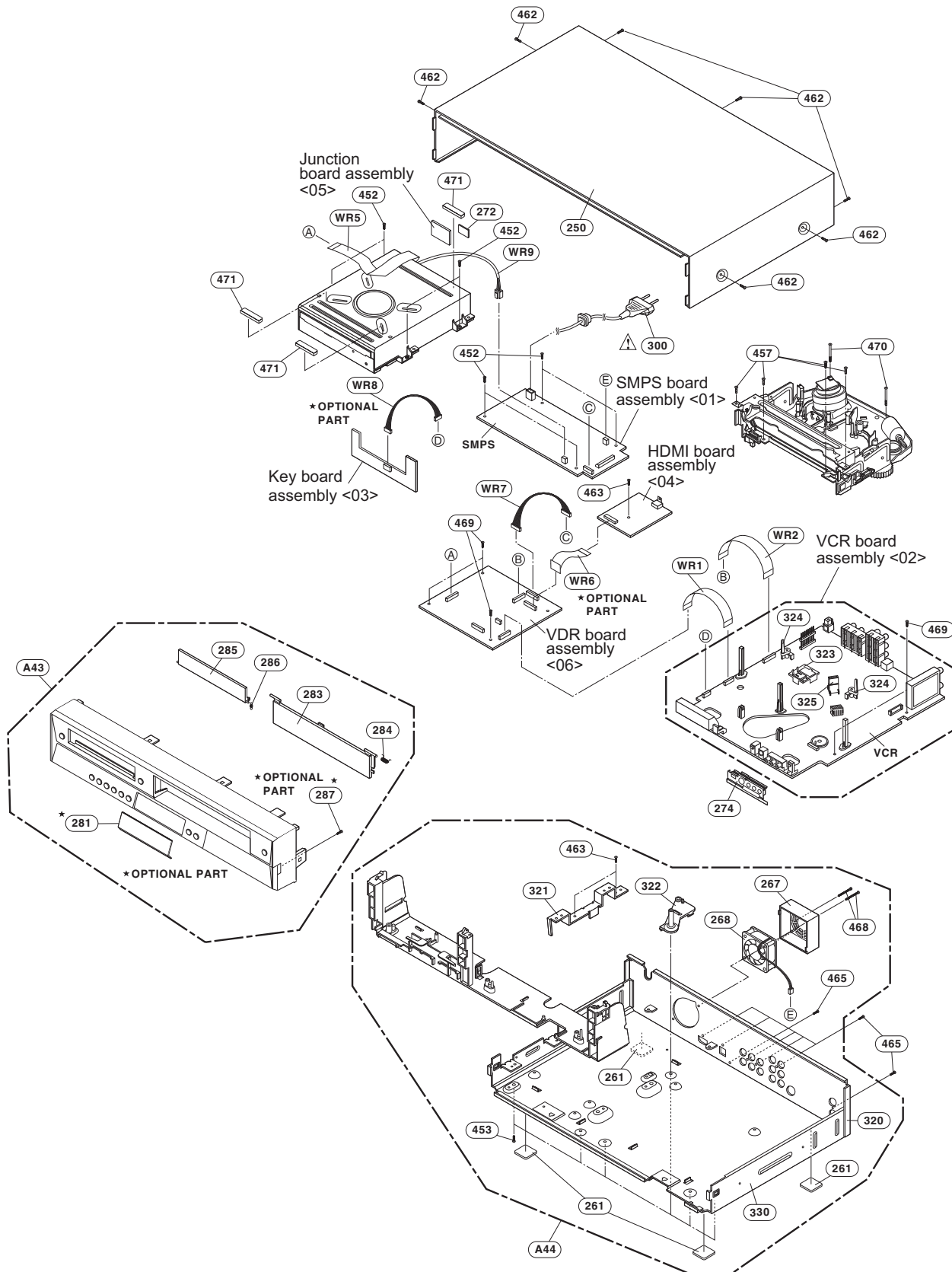
* (x_) in a description column shows the number of the used part.

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VHS mechanism assembly and parts list	3-4
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Exploded view of general assembly and parts list

Block No.M1MM



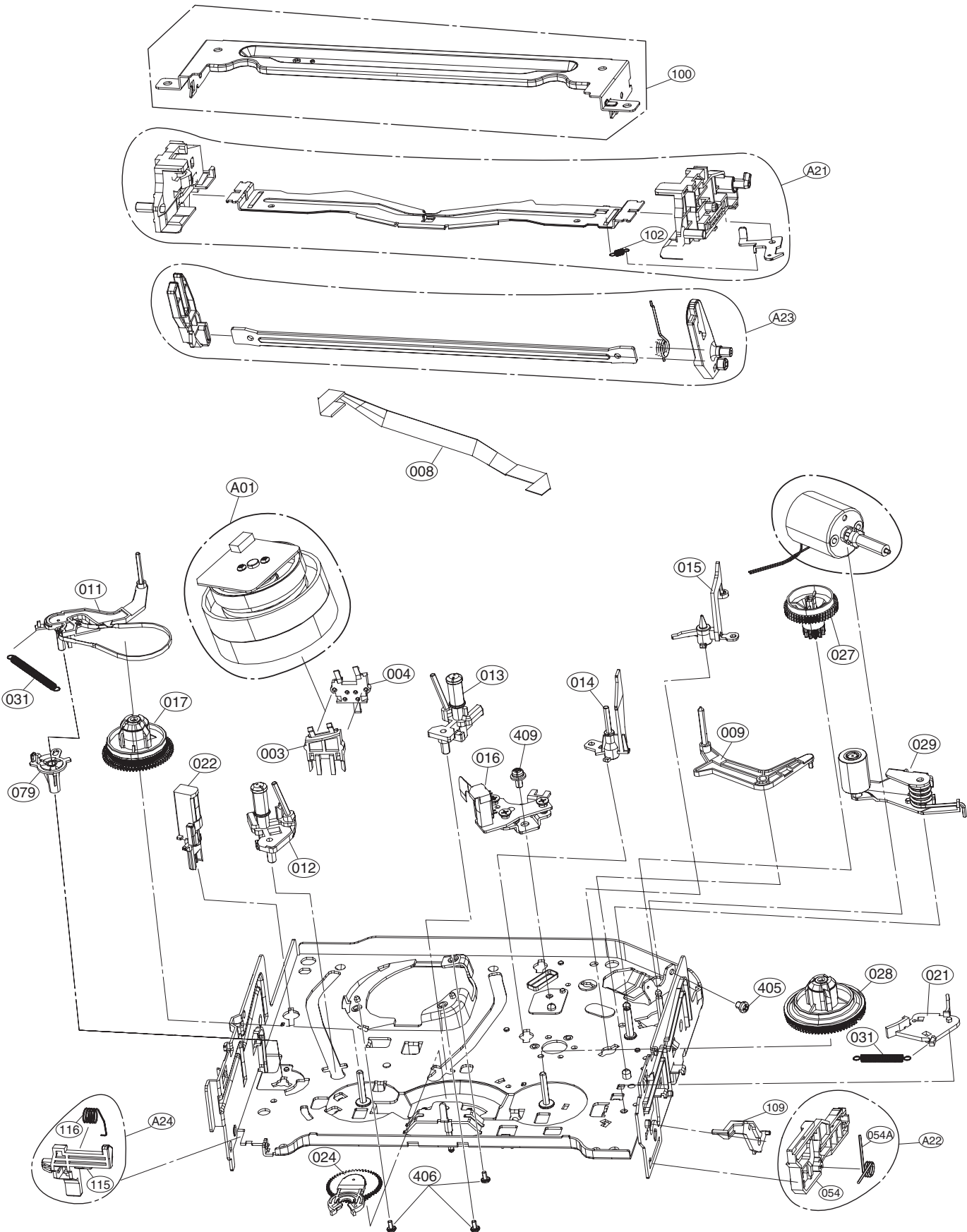
General assembly

Block No. [M][1][M][M]

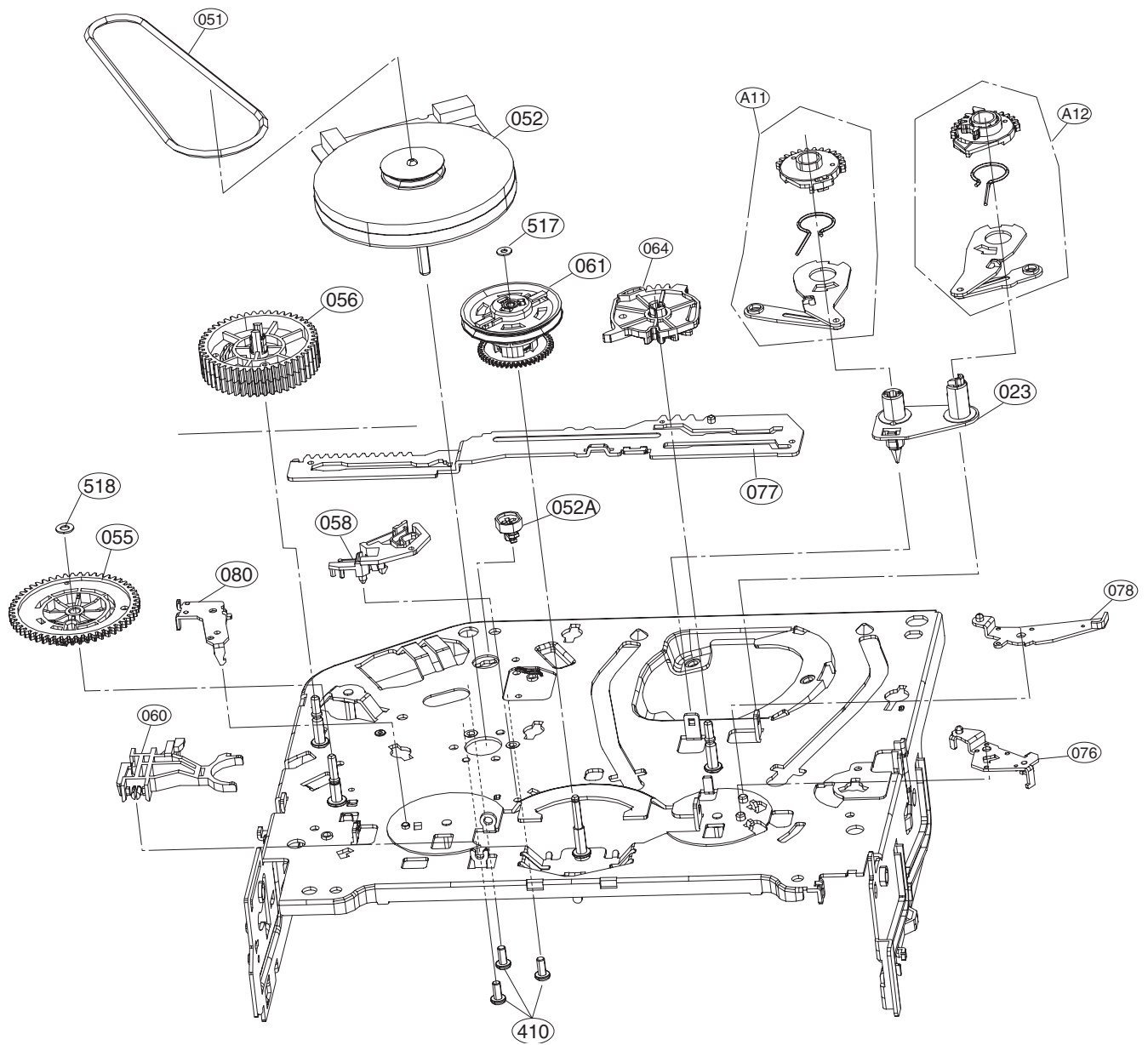
△ Symbol No.	Part No.	Part Name	Description
250	LG-3110R-V043C	Case	RC10000 PRESS TOP SCREW SIDE-4
261	LG-5040R-0069X	Damper	VCR RC10000 OTHER DW-PMF-01 19(x4)
267	LG-4930R-0558A	Holder	MOLD ABS DVD DR7000 MOLD FAN
268	LG-5900R-D023D	Fan Module	FD124015LB(1N2K) 4.5KRPM DC 12
272	LG-3300R-D079A	Plate	PRESS STS 301 T0.3 RH7000 OTHE
274	LG-3300R-V155A	Plate	PRESS STS 301 T0.2 RC100 PRESS
281	LG-3790R-D526A	Window Decor	VCR RC100 RCJ10-3 MOLD DR-MV7
283	LG-3580R-V158A	Door Case	VCR RC100 RCJ10 MOLD DR-MV7
284	LG-442-681A	Spring	EXTRUSION STS 301 DOOR
285	LG-3580R-T233A	Door Case	VCR RC100 RCJ10-2 MOLD DR-MV7
286	LG-4970R-0146A	Spring	EXTRUSION STS 301 PLATE DR4000
287	LG-1SZZR-0098J	Screw Customzied	- + 3MM 6.5MM MSWR FZY
△ 300	LG-6410RAHP02D	Power Cord Assembly	HIT-110/NISPT-2/2X18AWG/60
320	LG-3720R-D141P	Panel Rear	PRESS SECC T0.8 VCR RC100 ONLY
321	LG-4810R-0353A	Bracket	PRESS SECC T0.8 VCR RC100 PRES
322	LG-4930R-0637A	Holder	MOLD ABS VCR RC100 MOLD POWER
323	LG-3111R-0089E	Case Assembly	PRE AMP SLIM COMBI C-CORE A NO
324	LG-4930R-0472A	Holder	MOLD ABS VCR ONE BOARD SLIM MO(x2)
325	LG-3110R-V013A	Case	PRESS SPTE T0.3 SHIELD(SLIM-CO
330	LG-3140R-V016A	Chassis	PRESS SECC T0.8 RC100 PRESS MA
452	LG-1SZZR-0098A	Screw Customzied	- + 3MM 10MM MSWR FZY SIN JIN(x8)
453	LG-1SZZR-0098A	Screw Customzied	- + 3MM 10MM MSWR FZY SIN JIN(x6)
457	LG-1SZZR-0098E	Screw Customzied	- + 3MM 12MM MSWR FZW(x4)
462	LG-1SZZR-0098G	Screw Customzied	- + 3MM 8MM MSWR FZW(x7)
463	LG-1SZZR-0098G	Screw Customzied	- + 3MM 8MM MSWR FZW(x3)
465	LG-1SZZR-0097N	Screw Customzied	- + 3MM 8MM MSWR FZB SIN JIN(x7)
468	LG-1SZZR-0098X	Screw Customzied	- + 3MM 20MM MSWR FZB(x2)
469	LG-1SZZR-0098J	Screw Customzied	- + 3MM 6.5MM MSWR FZY(x5)
470	LG-1SZZR-0098K	Screw Customzied	- + 3MM 21MM MSWR FZY(x2)
471	LG-4986R-0033H	Gasket	(x3)
A43	LG-3721R-F462A	Panel Assembly Front	VCR RC100 RCJ10 DR-MV7
A44	LG-3141R-V030P	Frame Assembly	VCR RCJ106M NA1ULL JVC NTSC
WR1	LG-6850R-GA08Z	Cable FFC	RC100 80MM 2.00MM 15P WHITE UL
WR2	LG-6850R-EA12Y	Cable FFC	P=0.5 FFC UL2896 SPECIAL C-TYP
WR5	LG-6850R-EA21Z	Cable FFC	P=0.5 FFC UL2896 SPECIAL C-TYP
WR6	LG-6850R-EA07Z	Cable FFC	RC100 SERISE 70MM 0.50MM 40P W
WR7	LG-6631R-E116J	Harness Single	RC100 SERISE GIL-S GIL-S 120mM
WR8	LG-6631R-E116K	Harness Single	RC100 SERISE GIL-S GIL-S 100mM
WR9	LG-6631R-H006A	Harness Single	RC100 SERISE CH0508-04 SMH200-

VHS mechanism assembly and parts list

Block No. M2MM



BACK SIDE



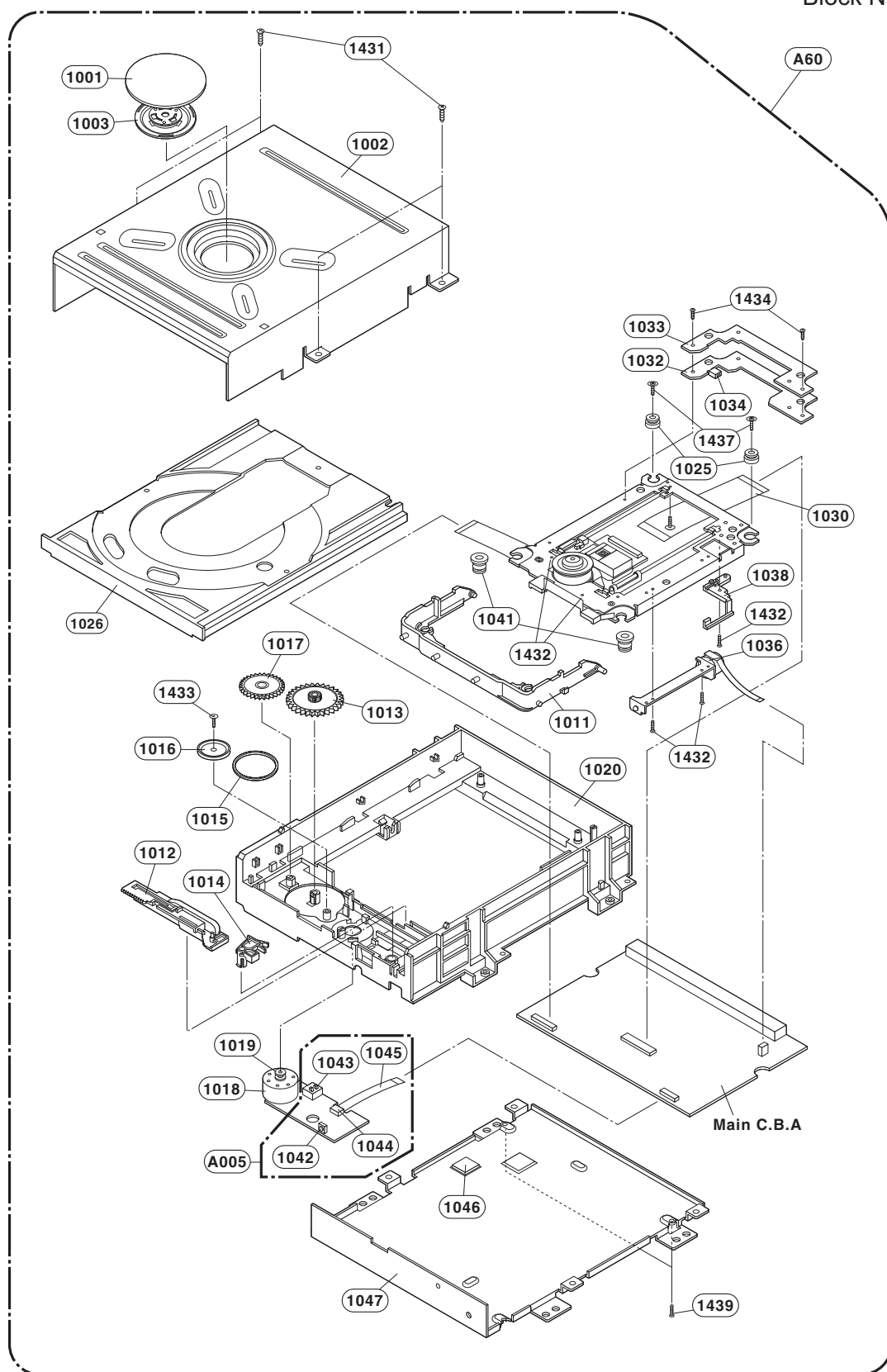
VHS mechanism

Block No. [M][2][M][M]

△ Symbol No.	Part No.	Part Name	Description
003	LG-4930R-0449A	Holder	MOLD POM DECK/MECHA FPCB(6CH)
004	LG-5006R-0045A	Cap	MOLD POM DECK/MECHA FPCB - D3
008	LG-6850R-HG18Y	Cable FFC	1.25 x 7 x 170 x C(0.05 x 0.8)
009	LG-4260R-0056A	Arm	MOLD POM DECK/MECHA T/UP OTHER
011	LG-4261R-0040A	Arm Assembly	DECK/MECHA TENSION - D37
012	LG-3041R-M037B	Base Assembly	P2 - D37
013	LG-3041R-M038B	Base Assembly	P3 - D37
014	LG-3041R-M039A	Base Assembly	P4 - D37
015	LG-5870R-0007A	Lever	DECK/MECHA LID OTHER - D37
016	LG-3041R-M036D	Base Assembly	A/C HEAD (ALPS) - D37 (DUMMY H
017	LG-4408R-0005B	Reel	MOLD POM DECK/MECHA S (VE) OTH
021	LG-4421R-M002A	Brake	T - D37
022	LG-6520D00004B	Magnetic Head	- ST ST FE HEAD FOR D37 13.5
023	LG-3040R-M056A	Base	MOLD ABS LOADING OTHER - D37
024	LG-4261R-0042A	Arm Assembly	DECK/MECHA IDLER(N) - D37
027	LG-4470R-0133A	Gear	MOLD POM DECK/MECHA WHEEL OTHE
028	LG-4408R-0006A	Reel	MOLD POM DECK/MECHA T OTHER -
029	LG-4261R-0037B	Arm Assembly	DECK/MECHA PINCH - D37 (YAMAUC
031	LG-4970R-0175A	Spring	EXTRUSION STS 301 COIL TENSIO(x2)
051	LG-4400R-0005A	Belt	MOLD RUBBER CAPSTAN
052	LG-4680R-A015A	Motor DC	F2QVB66 28V - 150MA - - - - 1M
052A	LG-4980R-0029A	Supporter	MOLD POM DECK/MECHA CAPSTAN OT
054	LG-4470R-0136A	Gear	MOLD POM DECK/MECHA RACK F/L O
054A	LG-4970R-0171A	Spring	EXTRUSION STS 301 COIL RACK F
055	LG-4470R-0140A	Gear	MOLD POM DECK/MECHA DRIVE OTHE
056	LG-4470R-0139A	Gear	MOLD POM DECK/MECHA CAM OTHER
058	LG-4421R-M001A	Brake Assembly	CAPSTAN - D37
060	LG-4510R-0065A	Lever	MOLD POM DECK/MECHA F/R OTHER
061	LG-4265R-0007A	Clutch Assembly	DECK/MECHA D37(N)
064	LG-4470R-0141A	Gear	MOLD POM DECK/MECHA SECTOR OTH
076	LG-4510R-0063A	Lever	PRESS SECC T0.5 DECK/MECHA SPR
077	LG-3300R-M203A	Plate	PRESS STS 301 T0.3 SLIDER OTHE
078	LG-4510R-0062A	Lever	PRESS SECC T0.5 DECK/MECHA TEN
079	LG-3040R-M057A	Base	MOLD ABS TENSION OTHER - D37
080	LG-4510R-0064A	Lever	PRESS SECC T0.5 DECK/MECHA BRA
100	LG-3301R-M193A	Plate Assembly	TOP - D37
102	LG-4970R-0173A	Spring	EXTRUSION STS 301 COIL STOPPER
109	LG-5870R-0008A	Lever	DECK/MECHA DOOR OTHER - D37
115	LG-4510R-0070A	Lever	MOLD POM DECK/MECHA SWITCH(C)
116	LG-4970R-0163A	Spring	EXTRUSION STS 301 COIL D35S SW
405	LG-1MPC0301270	Screw Machine	PH + 3MM 3.5MM SWRCH FZW - -
406	LG-1MEC0302018	Screw Machine	PWH + 2.6MM 6MM MSWR FZY SPR W(x3)
409	LG-1SZZR-0032B	Screw Customized	- + 2.6MM 5MM SWRCH FZY
410	LG-1APF0262218	Screw Taptite	PH + B 2.5MM 6.8MM SWRCH FZY(x3)
517	LG-1WZZR-0004F	Washer Customized	DECK/MECHA D37 OTHER STOPPER
518	LG-1WZZR-0004A	Washer Customized	STOPPER
A01	LG-6723R-0603E	Drum Assembly	DECK/MECHA (9C6S) D37-6CH NTSC
A11	LG-4471R-0017A	Gear Assembly	DECK/MECHA P3 - D37
A12	LG-4471R-0015A	Gear Assembly	DECK/MECHA P2 - D37
A21	LG-4931R-0084A	Holder Assembly	DECK/MECHA CST - D37
A22	LG-4471R-0016A	Gear Assembly	DECK/MECHA RACK F/L - D37
A23	LG-4261R-0038A	Arm Assembly	DECK/MECHA F/L - D37
A24	LG-4511R-0005A	Lever Assembly	SWITCH(C) - D37

DVD mechanism assembly and parts list

Block No.M3MM



DVD mechanism

Block No. [M][3][M][M]

Symbol No.	Part No.	Part Name	Description
1001	LG-MCK30125801	Cover	PRESS SECC 0.6 DECK/MECHA RS-0
1002	LG-3550R-2003A	Cover	PRESS SECC T0.8 DVD TOP(DR-09)
1003	LG-4861R-0021B	Clamp Assembly	DECK/MECHA DR-09 (RS-01A) DI
1011	LG-MAM30122601	Base	MOLD LUPOS GP-2100 RS-01 (DR-0
1012	LG-4974R-0082A	Guide	DECK/MECHA UP/DOWN RS-01A MOL
1013	LG-MDT30123101	Gear	MOLD LUCEL N109-LD DECK/MECHA
1014	LG-MFC30123901	Lever	MOLD LUCEL N109-LD DECK/MECHA
1015	LG-4400H-1014A	Belt	MOLD RUBBER LOADING NM
1016	LG-MGN30124101	Pulley	MOLD LUCEL N109-LD DECK/MECHA
1017	LG-MDT30122801	Gear	MOLD LUCEL N109-LD DECK/MECHA
1018	LG-4680R-E009A	Motor DC	RF300EH-1D390 2V 90MA 25MA 1.3
1019	LG-4560H-1005A	Pulley	MOLD POM F20.03 MOTOR(GM-R512
1020	LG-3040R-D026A	Base	MOLD ABS MAIN(DR-09) MOLD (RS-
1025	LG-5040H-1104C	Damper	CUTTING RUBBER REAR NM(DVDW)(x2)
1026	LG-3390R-0037A	Tray	MOLD ABS DVD DISC(DR-09) MOLD
1030	LG-6850R-EA78Z	Cable FFC	P=0.5 FFC UL2896 SPECIAL 78 D
1032	LG-4810R-0383A	Bracket	DECK/MECHA RS-01 PRESS DVA
1033	LG-MAZ30126001	Bracket	PRESS SECC 1.6 DECK/MECHA RS-0
1034	LG-5040H-1078A	Damper	CUTTING RUBBER ANTI-SHOCK GCC
1036	LG-4680HP5025C	Motor DC	SPS-15RF-172KPA 5V - 350MA - -
1038	LG-4930R-0669A	Holder	DECK/MECHA SPINDLE RS-01A MOL
1041	LG-5040H-1103C	Damper	CUTTING RUBBER FRONT NM(DVDW)(x2)
1042	LG-558-026I	Switch Tact	JTP-1236A 1C1P 12VDC 0.05A VER
1043	LG-6600HXF102A	Switch Detector	MPU20160MLB0 2C1P 5VDC 0.7MA V
1044	LG-6630X60119A	Conector FFC/FPC/PIC	FCZ100E-07RS-K 7P 1.00MM FFC/F
1045	LG-6850R-GG64Z	Cable FFC	E129545 65MM 2.00MM NO WHITE U
1046	LG-5040H-1074D	Damper	CUTTING RUBBER JW1 GWA-4083B
1047	LG-3550R-2004A	Cover	PRESS SECC T0.8 DVD BTM(DR-09)
1431	LG-1SZZR-0098G	Screw Customzied	- + 3MM 8MM MSWR FZW(x4)
1432	LG-1SZZH-1072D	Screw Customzied	PH + 2MM 4.5MM SWRCH FZW(x5)
1433	LG-1SZZR-0075A	Screw	
1434	LG-1SZZH-1072E	Screw Customzied	PH + 2MM 6MM SWRCH FZW(x2)
1437	LG-1SZZH-1003E	Screw Customzied	PWH + 2MM 13MM SWRCH NIY(x2)
1439	LG-1SZZH-1007B	Screw Customzied	+ D2.0 6MM SWRCH16A/ZNBK 4MM 1(x2)
A005	LG-6871R-0P54B	PCB Assembly	RS-01A FRONT DI
A60	LG-6721RFN021A	Deck Assembly DVD	DECK/MECHA RS-01A MD(DR-09)+M

Electrical parts list

SMPS board

Block No. [0][1]

△ Symbol No.	Part No.	Part Name	Description
A47	LG-3501R-7721B	Board Assembly	DVD NARROW DVD RC-100 SERIES
△ PW101	LG-561-292B	Conector Wafer	GP390-03P-TS 3P 3.96MM 1R STRA
IC101	LG-0IPMG78398A	IC DC DC Converter	STR-W6251 8TO17.1V 15V 500MW T
△ IC102	PZ01IL1817000B	Sensor Position	LTV-817B 5V DIP BK PHOTO COUPL
IC103	LG-0IPMGUC004B	IC LDO Voltage Regulator	TL431 MAX12V 3.3V - TO92 TP 3P
IC153	LG-0IPMGGM003A	IC LDO Voltage Regulator	G9233 3.6TO7V 3.3V - TO220F ST
IC154	LG-0IPMGKE045A	IC LDO Voltage Regulator	KIA278R25PI 3.2TO10V 2.4V 1.5W
IC155	LG-0IKE781200S	IC LDO Voltage Regulator	KIA78R12PI-CU 13TO29V 12V 1.5W
IC156	LG-0IPMGKE047A	IC LDO Voltage Regulator	KIA278R05PI-CU 6TO12V 5V 1.5W
Q161	LG-0TR126809BA	TR Bipolar	KTA1268-BL PNP -5V -0.12KV 0
Q162	LG-0TR186209AB	TR Bipolar	STD1862LY-AT NPN 5V 30V 30V 2A
Q163	LG-0TR319809AC	Transistor Assembly	KTC3198 KTC3198 TP KEC - -BL
Q165	LG-0TR186209AB	TR Bipolar	STD1862LY-AT NPN 5V 30V 30V 2A
D101	LG-0DRRE00163A	Diode Rectifier	1F7 1KV 1.3V 5UA 25A 500NSEC R
D102	LG-0DD010009AC	Diode Rectifier	EU01W(R-FORM) 400V 2.5V 10UA 1
D122	LG-0DRVH00020A	Diode Rectifier	UG4DL-5708E3/22 200V 950MV 5UA
D123	LG-0DSDI00090A	Diode Schottky	SB360 740MV 60V 3A - - - DO201
D124	LG-0DSGF00040A	Diode Rectifier	UF5402-M11 200V 1V 10UA 150A 5
D126	LG-0DD010009AC	Diode Rectifier	EU01W(R-FORM) 400V 2.5V 10UA 1
D127	LG-0DSKE00141A	Diode Schottky	B5A60VI 550MV 60V 5A 35NSEC -
D128	LG-0DSKE00141B	Diode Schottky	B5A60VI 550MV 60V 5A 35NSEC -
D152	1SS133-T2	SI DIODE	1SS133 1.2V 90V 400MA 600MA 4N
D153	1SS133-T2	SI DIODE	1SS133 1.2V 90V 400MA 600MA 4N
D154	LG-0DSDI00090A	Diode Schottky	SB360 740MV 60V 3A - - - DO201
D156	LG-0DSDI00090A	Diode Schottky	SB360 740MV 60V 3A - - - DO201
△ C101	LG-624-088F	Capacitor Film DIP	435D 275V 104 K 100nF 10% 275V
△ C102	LG-624-088F	Capacitor Film DIP	435D 275V 104 K 100nF 10% 275V
C103	LG-0CE277JR6A0	Capacitor AL Radial	SMH250VS270M 270uF 20% 250V 1
C104	LG-0CN1040K948	Capacitor Ceramic Axial	CH UP050 F104Z-A-B Z 100nF -20
C105	LG-0CQ1031Y519	Capacitor Film DIP	230S 2J 103 K 10nF 10% 630V MP
C106	LG-624-087G	Capacitor Unclassified	HIGH-VOL 68PF/1KV SMPS SAMHWA
C107	LG-0CQ1521N409	Capacitor Film DIP	HPE 2A 152J TP 1.5nF 5% 100V P
C109	LG-0CE3366J618	Capacitor AL Radial	SMS5.0TP35VB33M 33uF 20% 35V 1
△ C110	LG-0CG1020U630	Capacitor Unclassified	1000PF D 400V 20% E(Z5U) R
△ C111	LG-0CG1020U630	Capacitor Unclassified	1000PF D 400V 20% E(Z5U) R
C115	LG-0CQ2222K409	Capacitor Film DIP	310M 1H 222 J 2.2nF 5% 50V PE
C122	LG-0CE108EH610	Capacitor AL Radial	KMG4.0CC25VB1000M 1000uF 20% 2
C123	LG-0CE2282F611	Capacitor AL Radial	KMF4.0CC16VB2200M 2200uF 20% 1
C124	LG-0CE108EH610	Capacitor AL Radial	KMG4.0CC25VB1000M 1000uF 20% 2
C126	LG-624-085D	Capacitor AL Radial	KME5.0TP50VB47M 47uF 20% 50V 1
C127	LG-0CE2282F611	Capacitor AL Radial	KMF4.0CC16VB2200M 2200uF 20% 1
C128	LG-0CE228BF630	Capacitor AL Radial	KME5.0MC16VB2200M 2200uF 20% 1
C132	LG-624-082G	Capacitor AL Radial	SHL5.0TP25VB470M 470uF 20% 25V
C133	LG-624-082H	Capacitor AL Radial	SHL5.0TP10VB1000M 1000uF 20% 1
C134	LG-624-082G	Capacitor AL Radial	SHL5.0TP25VB470M 470uF 20% 25V
C137	LG-624-082H	Capacitor AL Radial	SHL5.0TP10VB1000M 1000uF 20% 1
C143	LG-0CQ1042K409	Capacitor Film DIP	310M 1H 104 J 100nF 5% 50V PE
C152	LG-0CE2274C638	Capacitor AL Radial	ESS227M6R3T1A5E07G 220uF 20% 6
C153	LG-0CE1064K638	Capacitor AL Radial	ESS106M050T1A5C07G 10uF 20% 50
C154	LG-0CE2274C638	Capacitor AL Radial	ESS227M6R3T1A5E07G 220uF 20% 6
C155	QET61CM-107Z	E CAPACITOR	SRA5.0TP16VB100M 100uF 20% 16V
C156	QET61CM-107Z	E CAPACITOR	SRA5.0TP16VB100M 100uF 20% 16V
C162	LG-0CE477CD638	Capacitor AL Radial	SHL5.0TP10VB470M 470uF 20% 10V
C163	LG-0CE4754K638	Capacitor AL Radial	ESS475M050T1A5B07G 4.7uF 20% 5
C164	LG-0CE4754K638	Capacitor AL Radial	ESS475M050T1A5B07G 4.7uF 20% 5
R100	QRD121J-155Y	C RESISTOR	RD-92F3J1M50 1.5MΩ 5% 1/2W 9
R101	LG-614-007A	Resistor Cement	SQM2BJ2.7 2.7Ω 5% 2W 11.5X8X
R104	LG-0RS5602K619	Resistor Metal Oxide Film	SML02R0J56K0 56KΩ 5% 2W 8.6X
R105	LG-0RD0102F608	Resistor Carbon Film	RD-96S1J10R0 10Ω 5% 1/6W 3.2
R109	LG-0RS0350K619	Resistor Metal Oxide Film	SMR02R1JR350 350MΩ 5% 2W 8.6
R126	QRD161J-104Y	C RESISTOR	RD-96S1J100K 100KΩ 5% 1/6W 3
R141	QRD161J-221	C RESISTOR	RD-96S1J220R 220Ω 5% 1/6W 3
R142	QRD161J-222Y	C RESISTOR	RD-96S1J2K20 2.2KΩ 5% 1/6W 3
R143	QRE141J-102Y	C RESISTOR	RD-96S1J1K00 1KΩ 5% 1/6W 3.2
R144	LG-0RN3301F408	Resistor Metal Film	RN-96S1F3K30 3.3KΩ 1% 1/6W 3
R145	LG-0RN2701F408	Resistor Metal Film	RN-96S1F2K70 2.7KΩ 1% 1/6W 3
R146	QRD161J-221	C RESISTOR	RD-96S1J220R 220Ω 5% 1/6W 3

△ Symbol No.	Part No.	Part Name	Description
R147	QRD161J-104Y	C RESISTOR	RD-96S1J100K 100KΩ 5% 1/6W 3
R153	QRD161J-472Y	C RESISTOR	RD-96S1J4K70 4.7KΩ 5% 1/6W 3
R154	QRD161J-472Y	C RESISTOR	RD-96S1J4K70 4.7KΩ 5% 1/6W 3
R155	QRD161J-472Y	C RESISTOR	RD-96S1J4K70 4.7KΩ 5% 1/6W 3
R156	QRD161J-472Y	C RESISTOR	RD-96S1J4K70 4.7KΩ 5% 1/6W 3
R160	LG-0RS1200J619	Resistor Metal Oxide Film	SMR01R0J120R 120Ω 5% 1W 6.5X
R161	QRE141J-102Y	C RESISTOR	RD-96S1J1K00 1KΩ 5% 1/6W 3.2
R162	LG-0RS3301J619	Resistor Metal Oxide Film	SMR01R0J3K30 3.3KΩ 5% 1W 6.5
R163	LG-0RD1002F608	Resistor Carbon Film	RD-96S1J10K0 10KΩ 5% 1/6W 3
R164	QRD161J-472Y	C RESISTOR	RD-96S1J4K70 4.7KΩ 5% 1/6W 3
R165	QRD161J-472Y	C RESISTOR	RD-96S1J4K70 4.7KΩ 5% 1/6W 3
R171	QRD161J-183Y	C RESISTOR	RD-96S1J18K0 18KΩ 5% 1/6W 3
R173	LG-0RD4702F608	Resistor Carbon	RD-96S1J47K0 47KΩ 5% 1/6W 3
R175	QRD161J-222Y	C RESISTOR	RD-96S1J2K20 2.2KΩ 5% 1/6W 3
R176	QRD161J-222Y	C RESISTOR	RD-96S1J2K20 2.2KΩ 5% 1/6W 3
R177	LG-0RD1002F608	Resistor Carbon	RD-96S1J10K0 10KΩ 5% 1/6W 3
△ L102	LG-6200JB8013R	Filter Line Noise	SQ2626 25MH 27X21X33MM CAP SMD
L122	LG-6140RCC003H	Coil RF	CHOKO COIL 22 UH 8X8 5 PIE SAM
L123	LG-6140RCC003H	Coil RF	CHOKO COIL 22 UH 8X8 5 PIE SAM
L124	LG-6140RCC003H	Coil RF	CHOKO COIL 22 UH 8X8 5 PIE SAM
L127	LG-6140RCC009A	Coil RF	CCAR0525V-02010 10uH - - 8.5X1
△ T101	LG-6170RNGW23N	Transformer Switching	EER3530 470uH 35uH 1Ω 0.4mOH
BC101	LG-636-004C	Filter Bead	BFS3550R2FD8 70Ω 9X3.5X7.5MM
BC102	LG-636-004C	Filter Bead	BFS3550R2FD8 70Ω 9X3.5X7.5MM
BD101	LG-0DRDI00211A	Diode Bridge	GBL408-01 800V 1V 500UA 4A GBL
△ F101	LG-0FS1601B51D	Fuse Time Delay	218 1.6 GLASS 250V 1600MA KS
△ FH01	LG-586-008B	Holder	MOLD HIPS FUSE CLIP TP SINSUN
△ FH02	LG-586-008B	Holder	MOLD HIPS FUSE CLIP TP SINSUN
PSF01	LG-561-661B	Conector Wafer	5267-02A 2P 2.50MM 1R STRAIGHT
PSL01	LG-6630VK20604	Conector Wafer	SMW200-04P 4P 2.00MM 1R STRAIG
PSM01	LG-561-711J	Conector Wafer	GIL-S-10P-S2T2-EF 10P 2.00MM 1
PSV01	LG-6630R-BF03K	Conector BtoB	JE121-12 12P 2.54MM ANGLE FEMA
△ V101	LG-656-004C	Varistor	SVC681D-10A 680V 10% 250pF 10M
ZD101	LG-0DZ332609BA	Diode Zener	UZ-33BSB 33V 30.32TO31.88V 650
ZD103	LG-0DZ102609AB	Diode Zener	GDZJ10B(26mm) 10V 9.41TO9.9V 3
ZD152	LG-0DZ132609AB	Diode Zener	GDZJ13A(26mm) 13V 12.11TO12.75
ZD161	LG-0DZ627729AA	Diode Zener	MTZJT-776.2A 6.2V 5.78TO6.09V

VCR board

Block No. [0][2]

△ Symbol No.	Part No.	Part Name	Description
A46	LG-3501R-4837D	Board Assembly	VCR 2006 MULTI RCJ106M
IC301	LG-0ILNRHI009B	IC Unclassified	HA118725ANF-E PB-FREE HITACHI
IC501	LG-0IMCR02270B	IC Microcontrollers	MN101D10F LY1 2.7TO5.5V 100mA
IC503	LG-0ICS241600B	IC EEPROM	CAT24WC16L 16KBIT 2KX8BIT 2.5V
IC504	LG-0IKE703100A	IC Voltage Detector	KIA7031P -0.3TO15V 3.1V 400MW
IC505	LG-0IKE704200B	IC Assembly	KIA7042P KIA7042P(AT) TO-92 4
IC506	LG-0ILNRPY001B	IC LED Driver	PT6955 4.5TO5.5V - - SOP R/TP
IC801	LG-0IPHP960500A	IC Hi Fi	TDAP9605H 8.1TO13 2V .4.75TO5.5V
IC803	LG-0IPRPMT006A	IC Analog Switch	MM1225XFB6 4.7TO13V - - - SOP
IC804	LG-0ILNRON005A	IC OP Amplifier	MC33202DR2 - 10mV 0.01% - - 5
IC901	LG-0IPRPRH017A	IC Unclassified	BH7868FS RΩ 32PIN SSOP R/TP
Q301	LG-0TR534409AA	TR Bipolar	2SC5344Y NPN 5V 35V 30V 800MA
Q302	LG-0TR928009AD	TR Bipolar	KSA928A-Y PNP -5V -30V -30V -2
Q303	KRC103S-X	DIGITAL TR	KRC103S-T1 NPN 40V - 50V 100MA
Q305	LG-0TR387509AC	TR Bipolar	KTC3875S-GR(ALG) NPN 5V 60V 50
Q306	LG-0TR387509AC	TR Bipolar	KTC3875S-GR(ALG) NPN 5V 60V 50
Q307	LG-0TR103009AC	TR Bipolar	KRA103S-T1 PNP -40V - 50V 0
Q310	KTA1504/G/-X	TR Bipolar	KTA1504-GR PNP -5V -50V -50V -
Q501	KRC103S-X	DIGITAL TR	KRC103S-T1 NPN 40V - 50V 100MA
Q502	KRC103S-X	DIGITAL TR	KRC103S-T1 NPN 40V - 50V 100MA
Q503	LG-0TR127309AA	TR Bipolar	KTA1273 PNP -5V -30V -30V -2A
Q504	LG-0TR387509AC	TR Bipolar	KTC3875S-GR(ALG) NPN 5V 60V 50
Q508	LG-0TR127309AA	TR Bipolar	KTA1273 PNP -5V -30V -30V -2A
Q509	KTA1504/G/-X	TR Bipolar	KTA1504-GR PNP -5V -50V -50V -
Q510	KTA1504/G/-X	TR Bipolar	KTA1504-GR PNP -5V -50V -50V -
Q7M1	KTA1504/G/-X	TR Bipolar	KTA1504-GR PNP -5V -50V -50V -

△ Symbol No.	Part No.	Part Name	Description	△ Symbol No.	Part No.	Part Name	Description
Q7M2	KTA1504/G/-X	TR Bipolar	KTA1504-GR PNP -5V -50V -50V -	C368	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7
Q801	KTA1504/G/-X	TR Bipolar	KTA1504-GR PNP -5V -50V -50V -	C369	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7
Q901	KTA1504/G/-X	TR Bipolar	KTA1504-GR PNP -5V -50V -50V -	C370	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7
Q902	LG-0TR387509AC	TR Bipolar	KTC3875S-GR(ALG) NPN 5V 60V 50	C371	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7
Q903	LG-0TR387509AC	TR Bipolar	KTC3875S-GR(ALG) NPN 5V 60V 50	C375	QETC1HM-105Z	E CAPACITOR	ESS105M050T1A5B07G 1uF 20% 50V
Q904	KRC103S-X	DIGITAL TR	KRC103S-T1 NPN 40V - 50V 100MA	C376	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7
Q905	KTA1504/G/-X	TR Bipolar	KTA1504-GR PNP -5V -50V -50V -	C381	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
Q906	KRC103S-X	DIGITAL TR	KRC103S-T1 NPN 40V - 50V 100MA	C502	LG-0CE4765K618	Capacitor AL Radial	ESS476M050TBA5G09G 47uF 20% 50
Q907	KTA1504/G/-X	TR Bipolar	KTA1504-GR PNP -5V -50V -50V -	C503	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1
Q911	LG-0TR387509AC	TR Bipolar	KTC3875S-GR(ALG) NPN 5V 60V 50	C504	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7
Q912	LG-0TR387509AC	TR Bipolar	KTC3875S-GR(ALG) NPN 5V 60V 50	C505	LG-0CH1222K512	Capacitor Ceramic Chip	0603B222K500CT 2.2nF 10% 50V Y
				C506	LG-0CH1333K562	Capacitor Ceramic Chip	0603B333K500CT 33nF 10% 50V X7
D501	LG-0DR104009BA	Diode Rectifier	RL104F 400V 1.3V 5UA 30A 150NS	C507	LG-0CE4764H638	Capacitor AL Radial	ESS476M025T1A5E07G 47uF 20% 25
D502	LG-0DR104009BA	Diode Rectifier	RL104F 400V 1.3V 5UA 30A 150NS	C509	LG-0CH1333K562	Capacitor Ceramic Chip	0603B333K500CT 33nF 10% 50V X7
D901	LG-0DR104009BA	Diode Rectifier	RL104F 400V 1.3V 5UA 30A 150NS	C510	LG-0CH4470K412	Capacitor Ceramic Chip	0603N470J500LT 47pF 5% 50V C0G
D902	LG-0DR104009BA	Diode Rectifier	RL104F 400V 1.3V 5UA 30A 150NS	C511	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7
D903	LG-0DR104009BA	Diode Rectifier	RL104F 400V 1.3V 5UA 30A 150NS	C512	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7
D904	LG-0DR104009BA	Diode Rectifier	RL104F 400V 1.3V 5UA 30A 150NS	C513	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1
D905	LG-0DR104009BA	Diode Rectifier	RL104F 400V 1.3V 5UA 30A 150NS	C515	LG-0CE4754K638	Capacitor AL Radial	ESS475M050T1A5B07G 4.7uF 20% 5
D906	LG-0DR104009BA	Diode Rectifier	RL104F 400V 1.3V 5UA 30A 150NS	C516	LG-0CH4150K412	Capacitor Ceramic Chip	0603N150J500LT 15pF 5% 50V C0G
				C517	LG-0CH4150K412	Capacitor Ceramic Chip	0603N150J500LT 15pF 5% 50V C0G
C301	LG-0CE4764C638	Capacitor AL Radial	ESS476M6R3T1A5C07G 47uF 20% 6	C518	NDC31HJ-270X	C CAPACITOR	0603N270J500LT 27pF 5% 50V C0G
C302	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C519	LG-0CH4240K412	Capacitor Ceramic Chip	0603N240J500LT 24pF 5% 50V C0G
C303	LG-0CE3344K638	Capacitor AL Radial	ESS334M050T1A5C07G 330nF 20% 5	C520	LG-0CH1223K942	Capacitor Ceramic Chip	CC06032RY5V9BB223 22nF -20TO+8
C304	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7	C521	LG-0CE4764C638	Capacitor AL Radial	ESS476M6R3T1A5C07G 47uF 20% 6
C305	LG-0CE4754K638	Capacitor AL Radial	ESS475M050T1A5B07G 4.7uF 20% 5	C522	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7
C306	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P	C524	LG-0CE4775C638	Capacitor Unclassified	470UF SR SV 6.3V 20% FM5 TP 5
C307	LG-0CH1152K512	Capacitor Ceramic Chip	0603B152K500CT 1.5nF 10% 50V Y	C531	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P
C308	LG-0CE4754K638	Capacitor AL Radial	ESS475M050T1A5B07G 4.7uF 20% 5	C532	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7
C309	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	C533	LG-0CE1086C638	Capacitor AL Radial	SM55.0TP6.3VB1000M 1000uF 20%
C310	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	C534	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16
C312	LG-0CH4471K412	Capacitor Ceramic Chip	0603N471J500LT 470pF 5% 50V C0	C535	LG-0CH4681K412	Capacitor Ceramic Chip	0603N681J500LT 680pF 5% 50V C0
C313	LG-0CQ2231N409	Capacitor Film DIP	310M 2A 223 J 22nF 5% 100V PE	C539	LG-0CH1223K942	Capacitor Ceramic Chip	CC06032RY5V9BB223 22nF -20TO+8
C314	QET61CM-476	E CAPACITOR	ESS476M016T1A5C07G 47uF 20% 16	C540	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P
C315	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C541	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C316	LG-0CH1472K512	Capacitor Ceramic Chip	0603B472K500CT 4.7nF 10% 50V Y	C542	LG-0CE4764C638	Capacitor AL Radial	ESS476M6R3T1A5C07G 47uF 20% 6
C317	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	C543	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C319	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	C544	LG-0CE1053K638	Capacitor AL Radial	SRE5.0TP50VB1M 1uF 20% 50V 6.2
C320	LG-0CH4151K412	Capacitor Ceramic Chip	0603N151J500LT 150pF 5% 50V C0	C545	LG-0CH4470K412	Capacitor Ceramic Chip	0603N470J500LT 47pF 5% 50V C0G
C321	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C546	LG-0CE3364F638	Capacitor AL Radial	ESS336M016T1A5E07G 33uF 20% 16
C322	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C547	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16
C323	LG-0CH4470K412	Capacitor Ceramic Chip	0603N470J500LT 47pF 5% 50V C0G	C548	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7
C324	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C549	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1
C327	QETC1HM-225Z	E CAPACITOR	ESS225M050T1A5B07G 2.2uF 20% 5	C550	LG-0CH1222K512	Capacitor Ceramic Chip	0603B222K500CT 2.2nF 10% 50V Y
C328	LG-0CE4764C638	Capacitor AL Radial	ESS476M6R3T1A5C07G 47uF 20% 6	C551	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7
C329	QETC1HM-105Z	E CAPACITOR	ESS105M050T1A5B07G 1uF 20% 50V	C552	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P
C331	QETC1HM-105Z	E CAPACITOR	ESS105M050T1A5B07G 1uF 20% 50V	C553	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P
C332	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C554	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16
C335	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C555	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16
C336	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C556	QET61CM-107Z	E CAPACITOR	SRA5.0TP16VB100M 100uF 20% 16V
C337	LG-0CE1043K638	Capacitor AL Radial	SRE5.0TP50VB0.1M 100nF 20% 50V	C557	LG-0CH1223K942	Capacitor Ceramic Chip	CC06032RY5V9BB223 22nF -20TO+8
C338	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C558	LG-0CH1223K942	Capacitor Ceramic Chip	CC06032RY5V9BB223 22nF -20TO+8
C339	QETF1HM-335Z	E CAPACITOR	ESS335M050T1A5B07G 3.3uF 20% 5	C559	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P
C340	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	C560	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P
C342	LG-0CH4331K412	Capacitor Ceramic Chip	0603N331J500LT 330pF 5% 50V C0	C561	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P
C343	LG-0CE4764C638	Capacitor AL Radial	ESS476M6R3T1A5C07G 47uF 20% 6	C703	LG-0CE477CD638	Capacitor AL Radial	SHL5.0TP10VB470M 470uF 20% 10V
C344	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C704	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C345	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C706	LG-0CH4330K412	Capacitor Ceramic Chip	0603N330J500LT 33pF 5% 50V C0G
C346	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7	C707	LG-0CH4330K412	Capacitor Ceramic Chip	0603N330J500LT 33pF 5% 50V C0G
C347	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7	C709	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1
C348	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1	C710	LG-0CE4754K638	Capacitor AL Radial	ESS475M050T1A5B07G 4.7uF 20% 5
C349	LG-0CC0500K015	Capacitor Ceramic Radial	DD1HCH050CT49 5pF 0.25PF 50V C	C7M5	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1
C350	LG-0CE4764C638	Capacitor AL Radial	ESS476M6R3T1A5C07G 47uF 20% 6	C7M6	NDC31HJ-270X	C CAPACITOR	0603N270J500LT 27pF 5% 50V C0G
C351	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C7M7	LG-0CH1682K512	Capacitor Ceramic Chip	0603B682K500CT 6.8nF 10% 50V Y
C352	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C7N1	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16
C353	QETF1HM-335Z	E CAPACITOR	ESS335M050T1A5B07G 3.3uF 20% 5	C7N2	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16
C354	LG-0CH1472K512	Capacitor Ceramic Chip	0603B472K500CT 4.7nF 10% 50V Y	C7N3	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16
C355	QETC1HM-225Z	E CAPACITOR	ESS225M050T1A5B07G 2.2uF 20% 5	C7N4	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16
C356	LG-0CH1333K562	Capacitor Ceramic Chip	0603B333K500CT 33nF 10% 50V X7	C802	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1
C357	LG-0CH1223K942	Capacitor Ceramic Chip	CC06032RY5V9BB223 22nF -20TO+8	C803	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1
C358	QETC1HM-105Z	E CAPACITOR	ESS105M050T1A5B07G 1uF 20% 50V	C804	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1
C359	LG-0CE4754K638	Capacitor AL Radial	ESS475M050T1A5B07G 4.7uF 20% 5	C805	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1
C360	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7	C806	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16
C361	QETC1HM-105Z	E CAPACITOR	ESS105M050T1A5B07G 1uF 20% 50V	C807	LG-0CE4744K638	Capacitor AL Radial	ESS474M050T1A5B07G 470nF 20% 5
C362	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C808	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16
C365	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C809	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16
C366	LG-0CE4764C638	Capacitor AL Radial	ESS476M6R3T1A5C07G 47uF 20% 6	C810	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1
C367	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7	C811	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1

△ Symbol No.	Part No.	Part Name	Description	△ Symbol No.	Part No.	Part Name	Description
C812	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	C975	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16
C813	LG-0CH1682K512	Capacitor Ceramic Chip	0603B682K500CT 6.8nF 10% 50V Y	C976	QET61CM-107Z	E CAPACITOR	SRA5.0TP16VB100M 100uF 20% 16V
C814	QET61CM-476	E CAPACITOR	ESS476M016T1A5C07G 47uF 20% 16	C977	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C815	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	C978	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16
C816	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	C979	QET61CM-107Z	E CAPACITOR	SRA5.0TP16VB100M 100uF 20% 16V
C817	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	C980	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C818	QET61CM-476	E CAPACITOR	ESS476M016T1A5C07G 47uF 20% 16	C981	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16
C819	LG-0CH1682K512	Capacitor Ceramic Chip	0603B682K500CT 6.8nF 10% 50V Y	C982	QET61CM-107Z	E CAPACITOR	SRA5.0TP16VB100M 100uF 20% 16V
C820	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	C983	QET61CM-107Z	E CAPACITOR	SRA5.0TP16VB100M 100uF 20% 16V
C821	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7	R301	NRSA63J-123X	MG RESISTOR	MCR03EZPJ123 12KΩ 5% 1/10W 1
C822	QET61CM-476	E CAPACITOR	ESS476M016T1A5C07G 47uF 20% 16	R302	NRSA6AD-334W	MG RESISTOR	MCR03EZPJ334 330KΩ 5% 1/10W
C823	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	R303	LG-0RH1800C622	Resistor Chip	MCR03EZPJ181 180Ω 5% 1/10W 1
C824	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7	R304	NRSA6AD-473W	MG RESISTOR	MCR03EZPJ473 47KΩ 5% 1/10W 1
C825	LG-0CE4764C638	Capacitor AL Radial	ESS476M6R3T1A5C07G 47uF 20% 6	R305	NRSA63J-223X	MG RESISTOR	MCR03EZPJ223 22KΩ 5% 1/10W 1
C826	LG-0CH1103K562	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V X7	R306	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
C828	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	R307	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
C829	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1	R308	NRSA63J-682X	MG RESISTOR	MCR03EZPJ682 6.8KΩ 5% 1/10W
C832	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1	R309	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
C833	LG-0CH1105F942	Capacitor Ceramic Chip	0603F105Z160CT 1uF -20TO+80% 1	R310	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1
C836	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P	R311	NRSA6AD-272W	MG RESISTOR	MCR03EZPJ272 2.7KΩ 5% 1/10W
C837	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P	R312	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
C838	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P	R313	LG-0RH1200C622	Resistor Chip	MCR03EZPJ121 120Ω 5% 1/10W 1
C839	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P	R315	NRSA63J-222X	MG RESISTOR	MCR03EZPJ222 2.2KΩ 5% 1/10W
C842	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	R316	LG-0RH2701D622	Resistor Chip	MCR10EZHJ272 2.7KΩ 5% 1/8W 2
C843	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	R317	LG-0RH4701D622	Resistor Chip	MCR10EZHJ472 4.7KΩ 5% 1/8W 2
C848	QET61CM-476	E CAPACITOR	ESS476M016T1A5C07G 47uF 20% 16	R320	LG-0RH3302C622	Resistor Chip	MCR03EZPJ333 33KΩ 5% 1/10W 1
C849	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	R321	NRSA63J-332X	MG RESISTOR	MCR03EZPJ332 3.3KΩ 5% 1/10W
C850	LG-0CE2263F638	Capacitor AL Radial	SRE5.0TP16VB22M 22uF 20% 16V 3	R322	NRSA6AD-823W	MG RESISTOR	MCR03EZPJ823 82KΩ 5% 1/10W 1
C851	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	R323	NRSA63J-682X	MG RESISTOR	MCR03EZPJ682 6.8KΩ 5% 1/10W
C852	LG-0CH4151K412	Capacitor Ceramic Chip	0603N151J500LT 150pF 5% 50V C0	R324	NRSA63J-152X	MG RESISTOR	MCR03EZPJ152 1.5KΩ 5% 1/10W
C853	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R325	NRSA63J-332X	MG RESISTOR	MCR03EZPJ332 3.3KΩ 5% 1/10W
C854	LG-0CH4681K412	Capacitor Ceramic Chip	0603N681J500LT 680pF 5% 50V C0	R329	NRSA63J-331X	MG RESISTOR	MCR03EZPJ331 330Ω 5% 1/10W 1
C855	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R330	NRSA63J-331X	MG RESISTOR	MCR03EZPJ331 330Ω 5% 1/10W 1
C856	LG-0CH4681K412	Capacitor Ceramic Chip	0603N681J500LT 680pF 5% 50V C0	R332	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 10KΩ 5% 1/10W 16
C857	LG-0CH4151K412	Capacitor Ceramic Chip	0603N151J500LT 150pF 5% 50V C0	R333	NRSA63J-562X	MG RESISTOR	MCR03EZPJ562 5.6KΩ 5% 1/10W
C858	LG-0CE2263F638	Capacitor AL Radial	SRE5.0TP16VB22M 22uF 20% 16V 3	R337	NRSA63J-563X	MG RESISTOR	MCR03EZPJ563 56KΩ 5% 1/10W 1
C859	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R338	NRSA63J-562X	MG RESISTOR	MCR03EZPJ562 5.6KΩ 5% 1/10W
C860	LG-0CH4681K412	Capacitor Ceramic Chip	0603N681J500LT 680pF 5% 50V C0	R339	LG-0RJ6804C677	Resistor Chip	MCR03EZPJ685 6.8MΩ 5% 1/10W
C861	LG-0CH4681K412	Capacitor Ceramic Chip	0603N681J500LT 680pF 5% 50V C0	R342	NRSA63J-153X	MG RESISTOR	MCR03EZPJ153 15KΩ 5% 1/10W 1
C867	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R350	LG-0RH1001D622	Resistor Chip	MCR10EZHJ102 10KΩ 5% 1/8W 201
C868	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R351	LG-0RH1001D622	Resistor Chip	MCR10EZHJ102 10KΩ 5% 1/8W 201
C869	LG-0CH1222K512	Capacitor Ceramic Chip	0603B222K500CT 2.2nF 10% 50V Y	R362	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
C870	LG-0CH1222K512	Capacitor Ceramic Chip	0603B222K500CT 2.2nF 10% 50V Y	R363	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
C8C1	QETC1HM-105Z	E CAPACITOR	ESS105M050T1A5B07G 1uF 20% 50V	R364	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
C8C5	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	R365	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
C8C7	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	R501	NRSA63J-682X	MG RESISTOR	MCR03EZPJ682 6.8KΩ 5% 1/10W
C8D1	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	R502	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 10KΩ 5% 1/10W 16
C901	QET61CM-476	E CAPACITOR	ESS476M016T1A5C07G 47uF 20% 16	R503	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 10KΩ 5% 1/10W 16
C909	QET61CM-106Z	E CAPACITOR	ESS106M016T1A5B07G 10uF 20% 16	R504	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
C911	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y	R505	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
C912	LG-0CH1101K965	Capacitor Ceramic Chip	0603N101J500LT 100pF 10% 50V C	R506	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
C913	LG-0CH1101K965	Capacitor Ceramic Chip	0603N101J500LT 100pF 10% 50V C	R507	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
C914	LG-0CH1223K942	Capacitor Ceramic Chip	CC0603ZRY5V9B223 22nF -20TO+8	R508	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
C915	NDCC31HJ-270X	C CAPACITOR	0603N270J500LT 27pF 5% 50V C0G	R509	NRSA63J-562X	MG RESISTOR	MCR03EZPJ562 5.6KΩ 5% 1/10W
C917	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y	R510	NRSA63J-562X	MG RESISTOR	MCR03EZPJ562 5.6KΩ 5% 1/10W
C918	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y	R511	NRSA63J-562X	MG RESISTOR	MCR03EZPJ562 5.6KΩ 5% 1/10W
C925	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y	R512	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 10KΩ 5% 1/10W 16
C931	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P	R513	NRSA63J-562X	MG RESISTOR	MCR03EZPJ562 5.6KΩ 5% 1/10W
C933	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P	R514	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
C935	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P	R515	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
C936	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P	R516	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
C940	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y	R517	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
C941	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P	R518	LG-0RH1200C622	Resistor Chip	MCR03EZPJ121 120Ω 5% 1/10W 1
C960	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y	R519	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1
C961	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R520	NRSA63J-223X	MG RESISTOR	MCR03EZPJ223 22KΩ 5% 1/10W 1
C962	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R521	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
C963	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R522	LG-0RH1200C622	Resistor Chip	MCR03EZPJ121 120Ω 5% 1/10W 1
C964	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R523	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1
C965	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R524	NRSA63J-223X	MG RESISTOR	MCR03EZPJ223 22KΩ 5% 1/10W 1
C966	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R525	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
C967	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R526	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 10KΩ 5% 1/10W 16
C968	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y	R527	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 10KΩ 5% 1/10W 16
C969	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R528	LG-0RH1200C622	Resistor Chip	MCR03EZPJ121 120Ω 5% 1/10W 1
C970	QET61CM-107Z	E CAPACITOR	SRA5.0TP16VB100M 100uF 20% 16V	R529	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1
C971	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y	R530	NRSA6AD-273W	MG RESISTOR	MCR03EZPJ273 27KΩ 5% 1/10W 1
C972	QET61CM-226	E CAPACITOR	ESS226M016T1A5B07G 22uF 20% 16	R532	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 10KΩ 5% 1/10W 16
C973	QET61CM-107Z	E CAPACITOR	SRA5.0TP16VB100M 100uF 20% 16V	R533	NRSA6AD-273W	MG RESISTOR	MCR03EZPJ273 27KΩ 5% 1/10W 1
C974	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y				

△ Symbol No.	Part No.	Part Name	Description	△ Symbol No.	Part No.	Part Name	Description
R534	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	R809	LG-0RH1802C622	Resistor Chip	MCR03EZPJ183 18KΩ 5% 1/10W 1
R535	NRSA63J-105X	MG RESISTOR	MCR03EZPJ105 1MΩ 5% 1/10W 16	R810	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1
R536	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	R811	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1
R537	NRSA63J-104X	MG RESISTOR	MCR03EZPJ104 100KΩ 5% 1/10W	R812	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R538	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W	R821	NRSA63J-222X	MG RESISTOR	MCR03EZPJ222 2.2KΩ 5% 1/10W
R539	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	R822	NRSA63J-104X	MG RESISTOR	MCR03EZPJ104 100KΩ 5% 1/10W
R540	NRSA63J-222X	MG RESISTOR	MCR03EZPJ222 2.2KΩ 5% 1/10W	R823	NRSA63J-222X	MG RESISTOR	MCR03EZPJ222 2.2KΩ 5% 1/10W
R541	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R824	NRSA63J-104X	MG RESISTOR	MCR03EZPJ104 100KΩ 5% 1/10W
R542	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R829	NRSA63J-561X	MG RESISTOR	MCR03EZPJ561 560Ω 5% 1/10W 1
R554	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R830	NRSA63J-561X	MG RESISTOR	MCR03EZPJ561 560Ω 5% 1/10W 1
R555	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R833	NRSA63J-561X	MG RESISTOR	MCR03EZPJ561 560Ω 5% 1/10W 1
R556	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	R834	NRSA63J-561X	MG RESISTOR	MCR03EZPJ561 560Ω 5% 1/10W 1
R557	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R844	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R558	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R845	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R559	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R850	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R560	NRSA6AD-473W	MG RESISTOR	MCR03EZPJ473 47KΩ 5% 1/10W 1	R851	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R561	NRSA63J-331X	MG RESISTOR	MCR03EZPJ331 330Ω 5% 1/10W 1	R852	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R562	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	R853	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R567	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	R854	NRSA63J-750X	MG RESISTOR	MCR03EZPJ750 75Ω 5% 1/10W 16
R568	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	R855	NRSA63J-750X	MG RESISTOR	MCR03EZPJ750 75Ω 5% 1/10W 16
R569	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	R856	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R570	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	R857	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R571	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	R859	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R572	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R860	NRSA63J-104X	MG RESISTOR	MCR03EZPJ104 100KΩ 5% 1/10W
R573	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R861	NRSA63J-750X	MG RESISTOR	MCR03EZPJ750 75Ω 5% 1/10W 16
R574	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W	R862	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R575	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	R863	NRSA63J-122X	MG RESISTOR	MCR03EZPJ122 1.2KΩ 5% 1/10W
R576	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W	R864	NRSA63J-123X	MG RESISTOR	MCR03EZPJ123 12KΩ 5% 1/10W 1
R577	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W	R865	NRSA63J-153X	MG RESISTOR	MCR03EZPJ153 15KΩ 5% 1/10W 1
R578	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R866	NRSA63J-752X	MG RESISTOR	MCR03EZPJ752 7.5KΩ 5% 1/10W
R579	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R867	NRSA63J-752X	MG RESISTOR	MCR03EZPJ752 7.5KΩ 5% 1/10W
R581	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	R868	NRSA63J-752X	MG RESISTOR	MCR03EZPJ752 7.5KΩ 5% 1/10W
R582	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R869	NRSA63J-682X	MG RESISTOR	MCR03EZPJ682 6.8KΩ 5% 1/10W
R583	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R870	NRSA63J-752X	MG RESISTOR	MCR03EZPJ752 7.5KΩ 5% 1/10W
R585	NRSA63J-123X	MG RESISTOR	MCR03EZPJ123 12KΩ 5% 1/10W 1	R871	NRSA63J-682X	MG RESISTOR	MCR03EZPJ682 6.8KΩ 5% 1/10W
R586	NRSA63J-563X	MG RESISTOR	MCR03EZPJ563 56KΩ 5% 1/10W 1	R872	NRSA63J-752X	MG RESISTOR	MCR03EZPJ752 7.5KΩ 5% 1/10W
R587	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	R873	NRSA63J-752X	MG RESISTOR	MCR03EZPJ752 7.5KΩ 5% 1/10W
R588	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	R874	NRSA63J-104X	MG RESISTOR	MCR03EZPJ104 100KΩ 5% 1/10W
R589	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W	R875	LG-0RH5100C622	Resistor Chip	MCR03EZPJ511 510Ω 5% 1/10W 1
R590	NRSA6AD-273W	MG RESISTOR	MCR03EZPJ273 27KΩ 5% 1/10W 1	R877	NRSA63J-104X	MG RESISTOR	MCR03EZPJ104 100KΩ 5% 1/10W
R591	NRSA6AD-272W	MG RESISTOR	MCR03EZPJ272 2.7KΩ 5% 1/10W	R878	LG-0RH5100C622	Resistor Chip	MCR03EZPJ511 510Ω 5% 1/10W 1
R592	NRSA63J-471X	MG RESISTOR	MCR03EZPJ471 470Ω 5% 1/10W 1	R880	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R593	NRSA6AD-272W	MG RESISTOR	MCR03EZPJ272 2.7KΩ 5% 1/10W	R881	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R594	NRSA63J-222X	MG RESISTOR	MCR03EZPJ222 2.2KΩ 5% 1/10W	R888	NRSA63J-752X	MG RESISTOR	MCR03EZPJ752 7.5KΩ 5% 1/10W
R595	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R889	NRSA63J-752X	MG RESISTOR	MCR03EZPJ752 7.5KΩ 5% 1/10W
R596	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	R8C5	NRSA63J-105X	MG RESISTOR	MCR03EZPJ105 1MΩ 5% 1/10W 16
R597	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	R901	NRSA63J-750X	MG RESISTOR	MCR03EZPJ750 75Ω 5% 1/10W 16
R5G1	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R902	NRSA63J-750X	MG RESISTOR	MCR03EZPJ750 75Ω 5% 1/10W 16
R5G2	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R903	NRSA63J-750X	MG RESISTOR	MCR03EZPJ750 75Ω 5% 1/10W 16
R5K1	NRSA63J-681X	MG RESISTOR	MCR03EZPJ681 680Ω 5% 1/10W 1	R904	NRSA63J-750X	MG RESISTOR	MCR03EZPJ750 75Ω 5% 1/10W 16
R5K2	NRSA6AD-821W	MG RESISTOR	MCR03EZPJ821 820Ω 5% 1/10W 1	R905	NRSA63J-750X	MG RESISTOR	MCR03EZPJ750 75Ω 5% 1/10W 16
R5K3	NRSA63J-122X	MG RESISTOR	MCR03EZPJ122 1.2KΩ 5% 1/10W	R910	NRSA63J-750X	MG RESISTOR	MCR03EZPJ750 75Ω 5% 1/10W 16
R5K4	NRSA63J-152X	MG RESISTOR	MCR03EZPJ152 1.5KΩ 5% 1/10W	R911	NRSA63J-750X	MG RESISTOR	MCR03EZPJ750 75Ω 5% 1/10W 16
R705	NRSA63J-561X	MG RESISTOR	MCR03EZPJ561 560Ω 5% 1/10W 1	R913	NRSA63J-750X	MG RESISTOR	MCR03EZPJ750 75Ω 5% 1/10W 16
R706	NRSA63J-561X	MG RESISTOR	MCR03EZPJ561 560Ω 5% 1/10W 1	R915	NRSA6AD-393W	MG RESISTOR	MCR03EZPJ393 39KΩ 5% 1/10W 1
R716	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	R916	NRSA63J-562X	MG RESISTOR	MCR03EZPJ562 5.6KΩ 5% 1/10W
R7M1	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	R917	LG-0RH1501D622	Resistor Chip	MCR10EZJH152 1.5KΩ 5% 1/8W 2
R7M2	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	R918	LG-0RH1501D622	Resistor Chip	MCR10EZJH152 1.5KΩ 5% 1/8W 2
R7M3	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	R919	LG-0RH1500C622	Resistor Chip	MCR03EZPJ151 150Ω 5% 1/10W 1
R7M4	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	R920	NRSA63J-750X	MG RESISTOR	MCR03EZPJ750 75Ω 5% 1/10W 16
R7M7	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	R921	LG-0RH1100C622	Resistor Chip	MCR03EZPJ111 110Ω 5% 1/10W 1
R7N1	NRSA63J-332X	MG RESISTOR	MCR03EZPJ332 3.3KΩ 5% 1/10W	R922	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R7N2	NRSA63J-332X	MG RESISTOR	MCR03EZPJ332 3.3KΩ 5% 1/10W	R923	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R7N3	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R925	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R7N4	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R926	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R7N5	NRSA6AD-334W	MG RESISTOR	MCR03EZPJ334 330KΩ 5% 1/10W	R927	NRSA63J-561X	MG RESISTOR	MCR03EZPJ561 560Ω 5% 1/10W 1
R7N6	NRSA63J-104X	MG RESISTOR	MCR03EZPJ104 100KΩ 5% 1/10W	R928	NRSA63J-561X	MG RESISTOR	MCR03EZPJ561 560Ω 5% 1/10W 1
R7N7	NRSA6AD-334W	MG RESISTOR	MCR03EZPJ334 330KΩ 5% 1/10W	R929	NRSA63J-561X	MG RESISTOR	MCR03EZPJ561 560Ω 5% 1/10W 1
R7N8	NRSA63J-104X	MG RESISTOR	MCR03EZPJ104 100KΩ 5% 1/10W	R930	NRSA63J-561X	MG RESISTOR	MCR03EZPJ561 560Ω 5% 1/10W 1
R7N9	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	R940	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R801	LG-0RH3304C622	Resistor Chip	MCR03EZPJ335 3.3MΩ 5% 1/10W	R941	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
R802	LG-0RH3302C622	Resistor Chip	MCR03EZPJ333 33KΩ 5% 1/10W 1	R942	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
R803	NRSA6AD-272W	MG RESISTOR	MCR03EZPJ272 2.7KΩ 5% 1/10W	R944	NRSA63J-222X	MG RESISTOR	MCR03EZPJ222 2.2KΩ 5% 1/10W
R804	NRSA6AD-393W	MG RESISTOR	MCR03EZPJ393 39KΩ 5% 1/10W 1	R945	NRSA63J-222X	MG RESISTOR	MCR03EZPJ222 2.2KΩ 5% 1/10W
R805	NRSA6AD-272W	MG RESISTOR	MCR03EZPJ272 2.7KΩ 5% 1/10W	R956	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R806	LG-0RH3302C622	Resistor Chip	MCR03EZPJ333 33KΩ 5% 1/10W 1	R960	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
R807	NRSA63J-471X	MG RESISTOR	MCR03EZPJ471 470Ω 5% 1/10W 1	R963	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
R808	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R964	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W

△ Symbol No.	Part No.	Part Name	Description
R992	NRSA63J-471X	MG RESISTOR	MCR03EZPJ471 470Ω 5% 1/10W 1
R995	NRSA63J-471X	MG RESISTOR	MCR03EZPJ471 470Ω 5% 1/10W 1
R9A5	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R9A6	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R9A7	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R9A8	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R9A9	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R9B0	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R9B1	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R9B2	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
L300	LG-0LR0392J025	Inductor Wire Wound Radial	EL0405RA-390J-3 390UH 5% - 223M
L302	LG-0LR1000J025	Inductor Wire Wound Radial	EL0405RA-101J-3 100UH 5% - 150
L303	LG-0LR1500J025	Inductor Wire Wound Radial	EL0405RA-151J-3 150UH 5% - 130
L306	LG-0LR1000J025	Inductor Wire Wound Radial	EL0405RA-101J-3 100UH 5% - 150
L307	LG-0LR0122K4N5	Inductor Wire Wound Radial	12UH 10% R 3X5 TR5
L308	LG-0LR0102K035	Inductor Wire Wound Radial	EL0606RA-100K-3 10UH 10% - 353
L311	LG-0LR1000J025	Inductor Wire Wound Radial	EL0405RA-101J-3 100UH 5% - 150
L501	LG-0LR0102K035	Inductor Wire Wound Radial	EL0606RA-100K-3 10UH 10% - 353
L502	LG-0LR1000K035	Inductor Wire Wound Radial	EL0606RA-101K-3 100UH 10% - 17
L504	LG-0LR4700K035	Inductor Wire Wound Radial	EL0606RA-471K-3 470UH 10% - 11
L505	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
L506	LG-0LCCE00004L	Inductor Multilayer Chip	FI-B2012-102KJT 1UH 10% - 100M
L507	LG-0LCCE00004L	Inductor Multilayer Chip	FI-B2012-102KJT 1UH 10% - 100M
L701	LG-0LR0102K035	Inductor Wire Wound Radial	EL0606RA-100K-3 10UH 10% - 353
L701	LG-0LR1000K035	Inductor Wire Wound Radial	EL0606RA-101K-3 100UH 10% - 17
L802	LG-0LR1000K035	Inductor Wire Wound Radial	EL0606RA-101K-3 100UH 10% - 17
L803	LG-636-004C	Filter Bead	BFS3550R2FD8 70Ω 9X3.5X7.5MM
L804	LG-636-004C	Filter Bead	BFS3550R2FD8 70Ω 9X3.5X7.5MM
L805	LG-636-004C	Filter Bead	BFS3550R2FD8 70Ω 9X3.5X7.5MM
L806	LG-0LCCE00004E	Inductor Multilayer Chip	FI-C2012-103KJT 10UH 10% - 25M
L807	LG-0LCCE00004E	Inductor Multilayer Chip	FI-C2012-103KJT 10UH 10% - 25M
L808	LG-0LR1000K035	Inductor Wire Wound Radial	EL0606RA-101K-3 100UH 10% - 17
L809	LG-0LR1000J025	Inductor Wire Wound Radial	EL0405RA-101J-3 100UH 5% - 150
L810	LG-636-004C	Filter Bead	BFS3550R2FD8 70Ω 9X3.5X7.5MM
L811	LG-636-004C	Filter Bead	BFS3550R2FD8 70Ω 9X3.5X7.5MM
L812	LG-636-004C	Filter Bead	BFS3550R2FD8 70Ω 9X3.5X7.5MM
L813	LG-636-004C	Filter Bead	BFS3550R2FD8 70Ω 9X3.5X7.5MM
L905	LG-0LCCE00004E	Inductor Multilayer Chip	FI-C2012-103KJT 10UH 10% - 25M
L906	LG-0LCCE00004E	Inductor Multilayer Chip	FI-C2012-103KJT 10UH 10% - 25M
L907	LG-0LCCE00004E	Inductor Multilayer Chip	FI-C2012-103KJT 10UH 10% - 25M
L908	LG-0LCCE00004E	Inductor Multilayer Chip	FI-C2012-103KJT 10UH 10% - 25M
L909	LG-0LCCE00004E	Inductor Multilayer Chip	FI-C2012-103KJT 10UH 10% - 25M
L910	LG-0LCCE00004E	Inductor Multilayer Chip	FI-C2012-103KJT 10UH 10% - 25M
L911	LG-0LR0102K035	Inductor Wire Wound Radial	EL0606RA-100K-3 10UH 10% - 353
L912	LG-0LCCE00004L	Inductor Multilayer Chip	FI-B2012-102KJT 1UH 10% - 100M
L913	LG-0LCCE00004L	Inductor Multilayer Chip	FI-B2012-102KJT 1UH 10% - 100M
L914	LG-636-004C	Filter Bead	BFS3550R2FD8 70Ω 9X3.5X7.5MM
L915	LG-636-004C	Filter Bead	BFS3550R2FD8 70Ω 9X3.5X7.5MM
CF903	LG-6200HJC901A	Filter LCR	CFI06B1H101MF LPF(EMI) - 100pF
CF904	LG-6200HJC901A	Filter LCR	CFI06B1H101MF LPF(EMI) - 100pF
CF905	LG-6200HJC901A	Filter LCR	CFI06B1H101MF LPF(EMI) - 100pF
CF906	LG-6200HJC901A	Filter LCR	CFI06B1H101MF LPF(EMI) - 100pF
CS501	LG-6600M000026	Switch Push Button	MPU12970MLB0 VCR CST IN SW MI
DIS501	LG-6301R2U017D	LED Assembly	TOS-3669AEGMGMY-B OASIS UNIVER
ES501	LG-4931R-0085C	Holder Assembly	VCR DECK/MECHA END(S)
ES502	LG-4931R-0085C	Holder Assembly	VCR DECK/MECHA END(S)
JK801	LG-6612J00053A	Jack RCA	DPAE-0385 15MM 1RX3C ANGLE TR
JK804	LG-6612B00028A	Jack DIN	DUAЕ-0540-4 SOCKET 5P ANGLE DI
JK805	LG-6630S70046A	Connector USB	JE708-A2T-4 - 4P - - - - 1394
JK901	LG-6612J00026F	Jack RCA	ATT-10dB YUQIU RCA-616A-00-04
JK902	LG-6612K00003B	Jack Fiber Optic	PLT133/T5B 3P TX 2.54MM ANGLE
JK903	LG-6612BBBH5A	Jack DIN	SCN566S4GTTB000 SOCKET 4P ANGL
JK905	LG-6612J00063A	Jack RCA	DPAM-0402 15.24MM 2RX3C ANGLE
LD501	LG-4931R-0089C	Holder Assembly	VCR DECK/MECHA END(S)
MS501	LG-6600JR3002D	Switch Lever	SSS-51MD-3 1C1P 5VDC 1MA HORIZ
P3D01	LG-561-234S	Conector FFC/FPC/PIC	GF120-09S-TS 9P 1.25MM FFC/FPC
P3D02	LG-6630R5S008J	Conector FFC/FPC/PIC	06(11)FM22.5H-BTR-SH (LF)(SN)
P3D03	LG-561-251B	Conector BtoB	GB201-02P-TS-B 2P 2.00MM STRAI
PMC01	LG-6630BK01612	Conector BtoB	JE612-A2T-12A 12P 2.00MM STRAI
PV601	LG-561-711E	Conector Wafer	GIL-S-05P-S2T2-EF 5P 2.00MM 1R
PVM01	LG-6630R-FB100	Conector FFC/FPC/PIC	00-6232-015-006-800 15P 1.00MM
PVM02	LG-6630X60142A	Conector FFC/FPC/PIC	04-6263-040-000-894+ 40P 0.50M
PVS01	LG-6630B00141A	Conector BtoB	JE117-D28T-N 12P 2.54MM - PIN
RM501	LG-6712R1938EA	Receiver	TSOP2238AY 4.5T05.5V 1.5MA 38K
RS501	LG-6500RAB008A	Sensor Position	KIT-3001A 5V DIP BK REEL 4 PIN
RS502	LG-6500RAB008A	Sensor Position	KIT-3001A 5V DIP BK REEL 4 PIN

△ Symbol No.	Part No.	Part Name	Description
SW501	LG-556-213C	Switch Tact	THWV951BAA 1C1P 12VDC 0.05A HO
SW502	LG-556-213C	Switch Tact	THWV951BAA 1C1P 12VDC 0.05A HO
SW503	LG-6600R000122	Switch Tact	JTP1288H 1C1P 5VDC 0.1A VERTIC
TU701	LG-6700NFNL08A	Tuner Analog	TADS-H102F NTSC 9.125E7HZT03.1
X301	LG-6212AB2359C	Crystal	HC-49/S 3.579545MHZ 15PPM 3.5
X501	LG-6212AA2148F	Crystal	HC-49/S 14.31818MHZ 25PPM 14.3
X502	QAX0444-001	CRYSTAL	CFS-308 32.768KHZ 20PPM 32.768
ZD501	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD502	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD503	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD504	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD801	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD802	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD803	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD804	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD805	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD806	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD809	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD810	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD811	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD812	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD813	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD814	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD925	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD926	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD927	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20
ZD928	LG-0DZKE00018A	Diode Zener	Z02W7.5V 7.5V 7T07.9V 23Ω 20

Key board

Block No. [0][3]

△ Symbol No.	Part No.	Part Name	Description
A50	LG-EBR30077402	PCB Assembly	RCJ106M JVC KEY-IN
R601	LG-0RD6800F608	Resistor Carbon	RD-96S1J680R 680Ω 5% 1/6W 3
R602	LG-0RD8200F608	Resistor Carbon	RD-96S1J820R 820Ω 5% 1/6W 3
R603	QRD161J-122	C RESISTOR	RD-96S1J1K20 1.2KΩ 5% 1/6W 3
R604	QRE141J-152Y	C RESISTOR	RD-96S1J1K50 1.5KΩ 5% 1/6W 3
R605	QRD161J-222Y	C RESISTOR	RD-96S1J2K20 2.2KΩ 5% 1/6W 3
R606	QRD161J-332Y	C RESISTOR	RD-96S1J3K30 3.3KΩ 5% 1/6W 3
P6V01	LG-561-712E	Conector Wafer	GIL-S-05P-S2L2-EF 5P 2.00MM 1R
SW601	LG-556-219B	Switch Tact	THWV502GAA 1C1P 12VDC 0.05A HO
SW602	LG-556-219B	Switch Tact	THWV502GAA 1C1P 12VDC 0.05A HO
SW603	LG-556-219B	Switch Tact	THWV502GAA 1C1P 12VDC 0.05A HO
SW604	LG-556-219B	Switch Tact	THWV502GAA 1C1P 12VDC 0.05A HO
SW605	LG-556-219B	Switch Tact	THWV502GAA 1C1P 12VDC 0.05A HO
SW606	LG-556-219B	Switch Tact	THWV502GAA 1C1P 12VDC 0.05A HO
SW607	LG-556-219B	Switch Tact	THWV502GAA 1C1P 12VDC 0.05A HO
SW608	LG-556-219B	Switch Tact	THWV502GAA 1C1P 12VDC 0.05A HO

HDMI board

Block No. [0][4]

△ Symbol No.	Part No.	Part Name	Description
A54	LG-6871R-4569A	PCB Assembly	LGEDI 2006 R-COMBI WITH HDMI
IC1700	LG-01PRP00666A	IC Video Processors	SIL9030 1.8VTO3.3V 27MHZ - - T
IC1701	LG-01PRP00664A	IC I/O Support Chip	UPA672T 50V 200mA - SC70 R/TP
C1700	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P
C1701	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P
C1702	LG-0CH1102K512	Capacitor Ceramic Chip	0603B102K500CT 1nF 10% 50V Y5P
C1703	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1704	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1705	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1706	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1707	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1708	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y

△ Symbol No.	Part No.	Part Name	Description
C1709	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1710	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1711	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1712	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1713	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1714	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1715	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1716	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1717	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1718	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1719	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1720	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1721	LG-0CH1104K512	Capacitor Ceramic Chip	0603B104K500CT 100nF 10% 50V Y
C1722	LG-0CH8106F611	Capacitor AL Chip	MV4.0TP16VC10M 10uF 20% 16V 11
C1723	LG-0CH8106F611	Capacitor AL Chip	MV4.0TP16VC10M 10uF 20% 16V 11
C1724	LG-0CH8106F611	Capacitor AL Chip	MV4.0TP16VC10M 10uF 20% 16V 11
C1725	LG-0CH8227C621	Capacitor AL Chip	MV6.3TP6.3VC220M 220uF 20% 6.3
C1726	LG-0CH8227C621	Capacitor AL Chip	MV6.3TP6.3VC220M 220uF 20% 6.3
C1727	LG-0CH8227C621	Capacitor AL Chip	MV6.3TP6.3VC220M 220uF 20% 6.3

R1700	NRSA63J-182X	MG RESISTOR	MCR03EZPJ182 1.8KΩ 5% 1/10W
R1701	NRSA63J-182X	MG RESISTOR	MCR03EZPJ182 1.8KΩ 5% 1/10W
R1702	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1703	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1704	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1705	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1706	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1707	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1708	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1709	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1710	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1713	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1714	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1715	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1716	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1717	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R1718	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
R1720	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
R1721	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
R1722	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W
R1723	NRSA63J-471X	MG RESISTOR	MCR03EZPJ471 470Ω 5% 1/10W 1
R1724	NRSA6AD-473W	MG RESISTOR	MCR03EZPJ473 47KΩ 5% 1/10W 1

L1700	LG-0RH0000D622	Resistor Chip	MCR10EZHJ000 0Ω 5% 1/8W 2012
L1701	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
L1702	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
L1703	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
L1705	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25

AR1700	LG-0RR0222Q62A	Resistor Array	RCA86TRJ22R0 22Ω 5% 1/16W 4
AR1701	LG-0RR0222Q62A	Resistor Array	RCA86TRJ22R0 22Ω 5% 1/16W 4
AR1702	LG-0RR0222Q62A	Resistor Array	RCA86TRJ22R0 22Ω 5% 1/16W 4
AR1703	LG-0RR0222Q62A	Resistor Array	RCA86TRJ22R0 22Ω 5% 1/16W 4
AR1711	LG-0RRZVTA0014	Resistor Array	RCA86TRJ10K0 10KΩ 5% 1/16W 4
AR1712	LG-0RRZVTA0014	Resistor Array	RCA86TRJ10K0 10KΩ 5% 1/16W 4
CF1700	LG-6200J000039	Filter Line Noise	ACM2012H-900-2P - 2X1.2X1.2MM
CF1701	LG-6200J000039	Filter Line Noise	ACM2012H-900-2P - 2X1.2X1.2MM
CF1702	LG-6200J000039	Filter Line Noise	ACM2012H-900-2P - 2X1.2X1.2MM
CF1703	LG-6200J000039	Filter Line Noise	ACM2012H-900-2P - 2X1.2X1.2MM
CN1701	LG-6630R-SY08W	Conector I/O	HMR48-AK5210 19P 0.50MM ANGLE
PHM01	LG-6630HXE440D	Conector FFC/FPC/PIC	04-6240-040-003-800 40P 0.50MM

Junction board

Block No. [0][5]

△ Symbol No.	Part No.	Part Name	Description
A55	LG-6871R-8888D	PCB Assembly	LGEDI RC100 LOADER RS-01A
CN620	LG-6630HXE440D	Conector FFC/FPC/PIC	04-6240-040-003-800 40P 0.50MM
CN621	LG-6630VL1004Z	Conector Wafer	JE610C-A2.54-G40-ST 40P 2.54MM

VDR board

Block No. [0][6]

△ Symbol No.	Part No.	Part Name	Description
A52	LG-EBR30285515	Option Code Assembly	F2 35 13 73 94 CF 1 0 RCJ106
IC1101	LG-0ILNR00159A	IC Digital Signal Processors	DMN-8603(B1) 1.2TO1.8V 800mA 2
IC1201	LG-0IPMG00017A	IC Voltage Regulator	G2995P1X 2 TO 5.5 2.5 300MW SO
IC1202	LG-0IMMRIH038A	IC DDR SDRAM	HYB25D(C)256160CE-6 256MBIT 16
IC1301	LG-0ISTLPH055A	IC CMOS	74HCT125 2TO6V 0.008mA BUFFER/
IC1302	LG-0ISS241610B	IC EEPROM	S524A60X51-SCT0 16KBIT 2KX8BIT
IC1303	LG-0IPMG78350A	IC LDO Voltage Regulator	I1680L-TP MAX12V/ 3.3V - SOP R/
IC1400	LG-0ISTLPH040A	IC CMOS	74LVC08APW 1.2TO3.6V 0.01mA AN
IC1402	LG-0ISTLPH043A	IC BiCMOS	74LVT16373ADGG 2.7TO3.6V 6mA D
IC1403	LG-0ISTLPH039A	IC CMOS	74LVC04APW 1.2TO3.6V 0.01mA IN
IC1501	LG-0ILNR00161A	IC Video Decode	SAA7137CHS 1.65VTO1.95V 3.0VTO
IC15A1	LG-0IPRP00015A	IC D/A Converter	CS4351-CZZR 3.13TO3.47V 200KHZ
IC1601	LG-0IPRPTI044A	IC Transceiver	TSB41AB1PHPG4 3.0VTO3.6V 3.92W

Q1301	LG-0TRAU80039A	TR Bipolar	STA723DG PNP -5V -40V -30V -3A
Q1303	LG-0TRAU80040A	TR Bipolar	STB1132Y PNP -5V -40V -32V -1A
Q15C1	LG-0TR103009AC	TR Bipolar	KRA103S-T1 PNP -40V - -50V 0
Q15C2	LG-0TR103009AC	TR Bipolar	KRA103S-T1 PNP -40V - -50V 0

D1101	LG-0DSRM00148A	Diode Switching	1SS355 1.2V 90V 225MA 500MA 4N
D1102	LG-0DSRM00148A	Diode Switching	1SS355 1.2V 90V 225MA 500MA 4N
D1300	LG-0DLRH0128AA	LED Chip	SML-010VT RED 2V 25mA 6.3mCD 6
C1100	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1101	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1102	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1104	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1
C1105	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1106	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1
C1107	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1108	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1109	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1111	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1113	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1114	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1116	LG-0CH7106F611	Capacitor TA Niobium	TSM1C106ASSR 10uF 20% 16V 1.6U
C1117	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1118	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1119	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1120	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1121	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1122	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1126	LG-0CS226ED6DC	Capacitor TA Niobium	TSM1A226ASSR 22uF 20% 10V 2.2U
C1129	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1130	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1131	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1132	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1
C1133	LG-0CS226ED6DC	Capacitor TA Niobium	TSM1A226ASSR 22uF 20% 10V 2.2U
C1134	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1135	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1136	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1137	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1138	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1
C1142	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1143	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1145	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1147	LG-0CH7106F611	Capacitor TA Niobium	TSM1C106ASSR 10uF 20% 16V 1.6U
C1151	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1152	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1153	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1
C1154	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1
C1155	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1156	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1
C1157	LG-0CH7476C621	Capacitor TA Niobium	TSM0J476TSSR 47uF 20% 6.3V 2.9
C1201	LG-0CH7106D611	Capacitor TA Niobium	TSM1A106ASSR 10uF 20% 10V 1UA
C1202	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1203	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1204	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1205	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1206	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1207	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5
C1208	LG-0CH7106D611	Capacitor TA Niobium	TSM1A106ASSR 10uF 20% 10V 1UA
C1209	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1210	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5

△ Symbol No.	Part No.	Part Name	Description	△ Symbol No.	Part No.	Part Name	Description
C1211	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	C1413	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1
C1212	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	C1414	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1
C1213	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	C1501	LG-0CH7106D611	Capacitor TA Niobium	TSM1A106ASSR 10uF 20% 10V 1UA
C1214	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	C1502	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1215	LG-0CH1103K516	Capacitor Ceramic Chip	0805B103K500CT 10nF 10% 50V Y5	C1503	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1216	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1	C1504	LG-0CH7106F611	Capacitor TA Niobium	TSM1C106ASSR 10uF 20% 16V 1.6U
C1217	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1	C1505	LG-0CH7106F611	Capacitor TA Niobium	TSM1C106ASSR 10uF 20% 16V 1.6U
C1218	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C1506	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1219	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C1507	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1220	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C1508	LG-0CH1223K942	Capacitor Ceramic Chip	CC0603ZRY5V9B8223 22nF -20TO+8
C1221	LG-0CH1103K516	Capacitor Ceramic Chip	0805B103K500CT 10nF 10% 50V Y5	C1509	LG-0CH1223K942	Capacitor Ceramic Chip	CC0603ZRY5V9B8223 22nF -20TO+8
C1222	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	C1510	LG-0CH1223K942	Capacitor Ceramic Chip	CC0603ZRY5V9B8223 22nF -20TO+8
C1223	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	C1511	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1224	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C1512	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1225	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C1513	LG-0CH1223K942	Capacitor Ceramic Chip	CC0603ZRY5V9B8223 22nF -20TO+8
C1226	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C1514	LG-0CH1223K942	Capacitor Ceramic Chip	CC0603ZRY5V9B8223 22nF -20TO+8
C1227	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1	C1515	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1228	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C1517	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1236	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C1518	LG-0CH1223K942	Capacitor Ceramic Chip	CC0603ZRY5V9B8223 22nF -20TO+8
C1237	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C1519	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1248	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	C1521	LG-0CH4560K412	Capacitor Ceramic Chip	0603N560J500LT 56pF 5% 50V COG
C1249	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C1522	LG-0CH1223K942	Capacitor Ceramic Chip	CC0603ZRY5V9B8223 22nF -20TO+8
C1250	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C1523	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1251	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	C1524	LG-0CH7106D611	Capacitor TA Niobium	TSM1A106ASSR 10uF 20% 10V 1UA
C1255	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	C1526	LG-0CH4330K412	Capacitor Ceramic Chip	0603N330J500LT 33pF 5% 50V COG
C1256	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C1527	LG-0CH4330K412	Capacitor Ceramic Chip	0603N330J500LT 33pF 5% 50V COG
C1257	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	C1528	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1258	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	C1530	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%
C1259	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	C1531	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%</

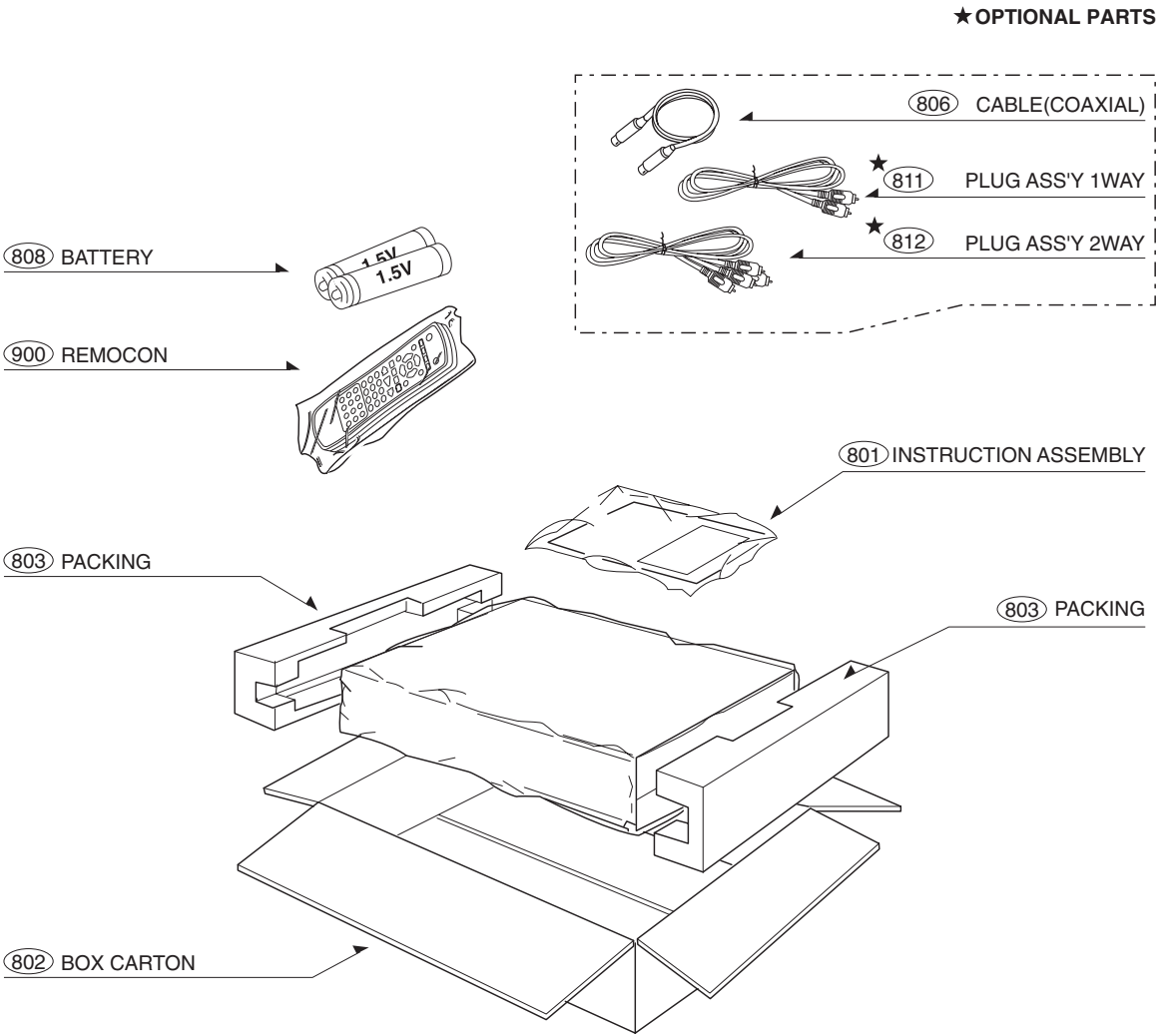
△ Symbol No.	Part No.	Part Name	Description	△ Symbol No.	Part No.	Part Name	Description
C1605	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	R1222	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
C1606	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	R1223	LG-0RH2002C622	Resistor Chip	MCR03EZPJ203 20KΩ 5% 1/10W 1
C1607	NDC31HJ-221X	C CAPACITOR	0603N221J500LT 220pF 5% 50V C0	R1224	LG-0RH2002C622	Resistor Chip	MCR03EZPJ203 20KΩ 5% 1/10W 1
C1608	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	R1227	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
C1609	LG-0CH1105D942	Capacitor Ceramic Chip	0603F105Z100CT 1uF -20TO+80% 1	R1228	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
C1610	LG-0CH1224K512	Capacitor Ceramic Chip	CS1608XR224K250NR 220nF 10% 25	R1229	LG-0RH0000D622	Resistor Chip	MCR10EZJH000 0Ω 5% 1/8W 2012
C1611	LG-0CH8106F611	Capacitor AL Chip	MV4.0TP16VC10M 10uF 20% 16V 11	R1230	LG-0RH0000D622	Resistor Chip	MCR10EZJH000 0Ω 5% 1/8W 2012
C1612	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	R1231	LG-0RJ0000H680	Resistor Chip	MCR50JZHJ000 0Ω 5% 1/2W 5025
C1613	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	R1232	LG-0RJ0000H680	Resistor Chip	MCR50JZHJ000 0Ω 5% 1/2W 5025
C1614	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	R1233	LG-0RJ0000H680	Resistor Chip	MCR50JZHJ000 0Ω 5% 1/2W 5025
C1615	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	R1234	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1
C1616	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	R1237	LG-0RJ0000H680	Resistor Chip	MCR50JZHJ000 0Ω 5% 1/2W 5025
C1617	LG-0CH1103K512	Capacitor Ceramic Chip	0603B103K500CT 10nF 10% 50V Y5	R1239	LG-0RH0000D622	Resistor Chip	MCR10EZJH000 0Ω 5% 1/8W 2012
C1618	LG-0CH4330K412	Capacitor Ceramic Chip	0603N330J500LT 33pF 5% 50V C0G	R1240	LG-0RH0000D622	Resistor Chip	MCR10EZJH000 0Ω 5% 1/8W 2012
C1619	LG-0CH4360K412	Capacitor Ceramic Chip	C1608C0G1H360JT 36pF 5% 50V C0	R1241	LG-0RH0000D622	Resistor Chip	MCR10EZJH000 0Ω 5% 1/8W 2012
C1702	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	R1245	LG-0RJ0000H680	Resistor Chip	MCR50JZHJ000 0Ω 5% 1/2W 5025
C1703	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	R1301	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
C1706	LG-0CH1104K942	Capacitor Ceramic Chip	0603F104Z500CT 100nF -20TO+80%	R1302	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R1100	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1304	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R1101	LG-0RH0512C622	Resistor Chip	MCR03EZPJ510 51Ω 5% 1/10W 16	R1306	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1102	LG-0RH0512C622	Resistor Chip	MCR03EZPJ510 51Ω 5% 1/10W 16	R1307	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R1103	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1308	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R1104	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	R1309	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1105	LG-0RH0512C622	Resistor Chip	MCR03EZPJ510 51Ω 5% 1/10W 16	R1310	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R1106	LG-0RH0512C622	Resistor Chip	MCR03EZPJ510 51Ω 5% 1/10W 16	R1311	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1
R1107	LG-0RH0512C622	Resistor Chip	MCR03EZPJ510 51Ω 5% 1/10W 16	R1312	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R1108	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1313	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R1109	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1314	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R1110	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1318	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1
R1111	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1319	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1
R1112	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1320	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R1114	LG-0RH1101C422	Resistor Chip	MCR03EZPJ112 1.1KΩ 1% 1/10W	R1326	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R1115	NRSA63J-332X	MG RESISTOR	MCR03EZPJ332 3.3KΩ 5% 1/10W	R1327	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1116	NRSA63J-332X	MG RESISTOR	MCR03EZPJ332 3.3KΩ 5% 1/10W	R1328	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1117	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1329	LG-0RH1500C422	Resistor Chip	MCR03EZPF151 150Ω 1% 1/10W 1
R1120	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1330	LG-0RH1500C422	Resistor Chip	MCR03EZPF151 150Ω 1% 1/10W 1
R1121	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1331	LG-0RH1500C422	Resistor Chip	MCR03EZPF151 150Ω 1% 1/10W 1
R1122	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	R1332	LG-0RH1500C422	Resistor Chip	MCR03EZPF151 150Ω 1% 1/10W 1
R1123	LG-0RH0512C622	Resistor Chip	MCR03EZPJ510 51Ω 5% 1/10W 16	R1333	LG-0RH1500C422	Resistor Chip	MCR03EZPF151 150Ω 1% 1/10W 1
R1124	LG-0RH0512C622	Resistor Chip	MCR03EZPJ510 51Ω 5% 1/10W 16	R1334	LG-0RH1500C422	Resistor Chip	MCR03EZPF151 150Ω 1% 1/10W 1
R1125	LG-0RH0512C622	Resistor Chip	MCR03EZPJ510 51Ω 5% 1/10W 16	R1335	LG-0RH3301C422	Resistor Chip	MCR03EZPF332 3.3KΩ 1% 1/10W
R1126	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1336	LG-0RH0562C422	Resistor Chip	MCR03EZPF560 56Ω 1% 1/10W 16
R1127	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1337	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R1128	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R1339	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1129	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R1340	LG-0RH1801D422	Resistor Chip	MCR10EZHF182 1.8KΩ 1% 1/8W 2
R1130	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R1341	LG-0RJ3601E472	Resistor Chip	MCR10EZHF362 3.6KΩ 1% 1/8W 2
R1131	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R1342	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R1132	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1343	LG-0RJ5601C477	Resistor Chip	MCR03EZPF562 5.6KΩ 1% 1/10W
R1133	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1344	LG-0RJ5601C477	Resistor Chip	MCR03EZPF562 5.6KΩ 1% 1/10W
R1134	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1345	LG-0RJ5601C477	Resistor Chip	MCR03EZPF562 5.6KΩ 1% 1/10W
R1135	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1346	LG-0RJ5601C477	Resistor Chip	MCR03EZPF562 5.6KΩ 1% 1/10W
R1136	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1347	LG-0RJ5601C477	Resistor Chip	MCR03EZPF562 5.6KΩ 1% 1/10W
R1139	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1348	LG-0RJ5601C477	Resistor Chip	MCR03EZPF562 5.6KΩ 1% 1/10W
R1140	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1390	LG-0RH1002D622	Resistor Chip	MCR10EZJH103 10KΩ 5% 1/8W 20
R1141	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1400	LG-0RH0682C622	Resistor Chip	MCR03EZPJ680 68Ω 5% 1/10W 16
R1142	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1401	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1144	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1402	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R1145	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1403	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R1147	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1404	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1148	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1405	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1149	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1406	LG-0RH0682C622	Resistor Chip	MCR03EZPJ680 68Ω 5% 1/10W 16
R1150	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1407	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1151	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1408	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1152	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1409	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1153	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1410	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1156	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	R1411	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1202	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R1412	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1203	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1413	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1204	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1414	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1205	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R1415	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1206	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R1416	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1209	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R1417	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1210	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	R1418	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1214	LG-0RH0512C622	Resistor Chip	MCR03EZPJ510 51Ω 5% 1/10W 16	R1419	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1215	LG-0RH0512C622	Resistor Chip	MCR03EZPJ510 51Ω 5% 1/10W 16	R1420	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1218	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1421	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1219	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1422	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
				R1423	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16

△ Symbol No.	Part No.	Part Name	Description	△ Symbol No.	Part No.	Part Name	Description
R1424	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1609	NRSA63J-681X	MG RESISTOR	MCR03EZPJ681 680Ω 5% 1/10W 1
R1425	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1610	NRSA63J-681X	MG RESISTOR	MCR03EZPJ681 680Ω 5% 1/10W 1
R1426	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1611	NRSA63J-681X	MG RESISTOR	MCR03EZPJ681 680Ω 5% 1/10W 1
R1427	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1612	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1428	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1613	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1
R1429	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1614	LG-0RH3903C622	Resistor Chip	MCR03EZPJ394 390KΩ 5% 1/10W
R1430	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1615	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R1431	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1616	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R1432	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1617	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16
R1434	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1618	LG-0RH0562C422	Resistor Chip	MCR03EZPF560 560 1% 1/10W 16
R1435	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1619	LG-0RH0562C422	Resistor Chip	MCR03EZPF560 560 1% 1/10W 16
R1436	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1620	LG-0RH5101C622	Resistor Chip	MCR03EZPJ512 5.1KΩ 5% 1/10W
R1437	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1621	LG-0RH0562C422	Resistor Chip	MCR03EZPF560 560 1% 1/10W 16
R1438	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1622	LG-0RH0562C422	Resistor Chip	MCR03EZPF560 560 1% 1/10W 16
R1439	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1623	LG-0RJ6201C477	Resistor Chip	MCR03EZPF622 6.2KΩ 1% 1/10W
R1440	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1624	LG-0RJ1004C477	Resistor Chip	MCR03EZPF105 1MΩ 1% 1/10W 16
R1443	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	R1710	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16
R1446	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	L1100	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1447	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	L1101	LG-6140H-A001A	Filter Bead	HH-1H4532-121JT 120Ω 4.5X3.2
R1448	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	L1103	LG-6140H-A001A	Filter Bead	HH-1H4532-121JT 120Ω 4.5X3.2
R1449	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W	L1104	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1450	NRSA63J-681X	MG RESISTOR	MCR03EZPJ681 680Ω 5% 1/10W 1	L1105	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1451	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	L1106	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1452	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W	L1107	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1453	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	L1108	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1456	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	L1109	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1458	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	L1300	LG-6140H-A001A	Filter Bead	HH-1H4532-121JT 120Ω 4.5X3.2
R1459	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	L1302	LG-6140H-A001A	Filter Bead	HH-1H4532-121JT 120Ω 4.5X3.2
R1461	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	L1303	LG-6140H-A001A	Filter Bead	HH-1H4532-121JT 120Ω 4.5X3.2
R1462	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W	L1305	LG-6140H-A001A	Filter Bead	HH-1H4532-121JT 120Ω 4.5X3.2
R1464	LG-0RH0222C622	Resistor Chip	MCR03EZPJ220 22Ω 5% 1/10W 16	L1308	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1465	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	L1309	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1501	LG-0RH3001C622	Resistor Chip	MCR03EZPJ302 3KΩ 5% 1/10W 16	L1310	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1502	NRSA63J-221X	MG RESISTOR	MCR03EZPJ221 220Ω 5% 1/10W 1	L1311	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1503	LG-0RH0332C622	Resistor Chip	MCR03EZPJ330 33Ω 5% 1/10W 16	L1312	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1504	LG-0RH1500C422	Resistor Chip	MCR03EZPJ151 150Ω 1% 1/10W 1	L1313	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1505	LG-0RH0272C622	Resistor Chip	MCR03EZPJ270 27Ω 5% 1/10W 16	L1501	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1506	NRSA6AD-470W	MG RESISTOR	MCR03EZPJ470 47Ω 5% 1/10W 16	L1502	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1507	LG-0RH0332C622	Resistor Chip	MCR03EZPJ330 33Ω 5% 1/10W 16	L1503	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1508	LG-0RH0272C622	Resistor Chip	MCR03EZPJ270 27Ω 5% 1/10W 16	L1504	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1509	NRSA6AD-470W	MG RESISTOR	MCR03EZPJ470 47Ω 5% 1/10W 16	L1506	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1510	LG-0RH2401C622	Resistor Chip	MCR03EZPJ242 2.4KΩ 5% 1/10W	L1509	LG-6140H-A001A	Filter Bead	HH-1H4532-121JT 120Ω 4.5X3.2
R1512	LG-0RH0332C622	Resistor Chip	MCR03EZPJ330 33Ω 5% 1/10W 16	L1510	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1513	LG-0RH0332C622	Resistor Chip	MCR03EZPJ330 33Ω 5% 1/10W 16	L1511	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1514	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	L1512	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1515	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	L1513	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1516	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	L1514	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R1518	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W	L1515	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R1520	LG-0RH0332C622	Resistor Chip	MCR03EZPJ330 33Ω 5% 1/10W 16	L1516	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R1521	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	L1517	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160
R1546	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	L1522	LG-0RH0000D622	Resistor Chip	MCR10EZJ000 0Ω 5% 1/8W 2012
R1547	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	L15A1	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1548	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	L15A2	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1549	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	L15A3	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1550	NRSA63J-100X	MG RESISTOR	MCR03EZPJ100 10Ω 5% 1/10W 16	L1601	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1551	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W	L1602	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1558	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	L1603	LG-6200HJC102A	Filter Bead	HB-1M2012-102JT 1000Ω 2X1.25
R1559	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1	L1604	LG-6200RJC003A	Filter Bead	HB-1S1608-121JT 120Ω 1.6X0.8
R1560	NRSA63J-750X	MG RESISTOR	MCR03EZPJ750 75Ω 5% 1/10W 16	L1605	LG-6200RJC003A	Filter Bead	HB-1S1608-121JT 120Ω 1.6X0.8
R1564	NRSA63J-0R0X	MG RESISTOR	MCR03EZPJ000 0Ω 5% 1/10W 160	L1606	LG-6200RJC003A	Filter Bead	HB-1S1608-121JT 120Ω 1.6X0.8
R1565	NRSA63J-561X	MG RESISTOR	MCR03EZPJ561 560Ω 5% 1/10W 1	L1607	LG-6200RJC003A	Filter Bead	HB-1S1608-121JT 120Ω 1.6X0.8
R1566	NRSA63J-561X	MG RESISTOR	MCR03EZPJ561 560Ω 5% 1/10W 1	AR1102	LG-0RRZVTA001J	Resistor Array	RCA86TRJ4K70 4.7KΩ 5% 1/16W
R15A0	LG-0RH0471C622	Resistor Chip	MCR03EZPJ471 4.7Ω 5% 1/10W 1	AR1103	LG-0RRZVTA001J	Resistor Array	RCA86TRJ4K70 4.7KΩ 5% 1/16W
R15A5	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	AR1201	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
R15A6	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	AR1202	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
R15A7	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	AR1203	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
R15B1	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W	AR1204	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
R15C4	NRSA63J-472X	MG RESISTOR	MCR03EZPJ472 4.7KΩ 5% 1/10W	AR1205	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
R15C7	NRSA6AD-270W	MG RESISTOR	MCR03EZPJ271 270Ω 5% 1/10W 1	AR1211	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
R15C8	NRSA6AD-270W	MG RESISTOR	MCR03EZPJ271 270Ω 5% 1/10W 1	AR1212	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
R1601	LG-0RH0512C622	Resistor Chip	MCR03EZPJ510 51Ω 5% 1/10W 16	AR1213	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
R1602	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	AR1214	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
R1603	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	AR1215	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
R1604	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	AR1216	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
R1605	NRSA63J-102X	MG RESISTOR	MCR03EZPJ102 1KΩ 5% 1/10W 16	AR1221	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
R1606	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1	AR1222	LG-0RR0222Q62A	Resistor Array	RCA86TRJ22R0 22Ω 5% 1/16W 4
R1607	NRSA63J-101X	MG RESISTOR	MCR03EZPJ101 100Ω 5% 1/10W 1				
R1608	NRSA63J-103X	MG RESISTOR	MCR03EZPJ103 10KΩ 5% 1/10W 1				

Symbol No.	Part No.	Part Name	Description
AR1223	LG-0RR0222Q62A	Resistor Array	RCA86TRJ22R0 22Ω 5% 1/16W 4
AR1224	LG-0RR0222Q62A	Resistor Array	RCA86TRJ22R0 22Ω 5% 1/16W 4
AR1225	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
AR1226	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
AR1227	LG-0RR0222Q62A	Resistor Array	RCA86TRJ22R0 22Ω 5% 1/16W 4
AR1501	LG-0RRZVTA001F	Resistor Array	RCA86TRJ33R0 33Ω 5% 1/16W 4
AR1502	LG-0RRZVTA001F	Resistor Array	RCA86TRJ33R0 33Ω 5% 1/16W 4
AR1601	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
AR1602	LG-0RR1002Q62C	Resistor Array	RCA86TRJ100R 100Ω 5% 1/16W 4
AR1701	LG-0RRZVTA001G	Resistor Array	RCA86TRJ51R0 51Ω 5% 1/16W 4
AR1702	LG-0RRZVTA001G	Resistor Array	RCA86TRJ51R0 51Ω 5% 1/16W 4
AR1703	LG-0RRZVTA001G	Resistor Array	RCA86TRJ51R0 51Ω 5% 1/16W 4
AR1704	LG-0RRZVTA001G	Resistor Array	RCA86TRJ51R0 51Ω 5% 1/16W 4
PMH01	LG-6630X60142A	Conector FFC/FPC/PIC	04-6263-040-000-894+ 40P 0.50MM
PML01	LG-6630X60142A	Conector FFC/FPC/PIC	04-6263-040-000-894+ 40P 0.50MM
PMS01	LG-6630R3S006C	Conector Wafer	GT200-10P-SS-A 10P 2.00MM 1R S
PMV01	LG-6630XE00115	Conector FFC/FPC/PIC	04-6232-015-010-000 15P 1.00MM
PMV02	LG-6630X60142A	Conector FFC/FPC/PIC	04-6263-040-000-894+ 40P 0.50MM
X1101	LG-6212AB2135C	Crystal	HC-49/SM 13.5MHZ 15PPM 13.5MHZ
X1501	LG-6212AB2246C	Crystal	HC-49/SM 24.576MHZ 15PPM 24.57
X1601	LG-6212AB2246C	Crystal	HC-49/SM 24.576MHZ 15PPM 24.57

Packing materials and accessories parts list

Block No.M4MM

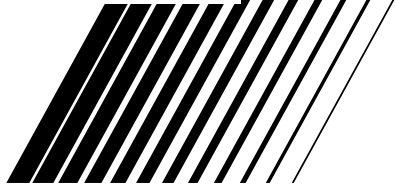


Packing and accessories

Block No. [M][4][M][M]

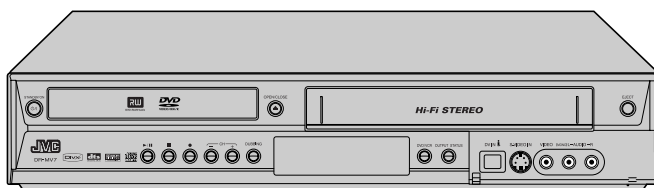
△ Symbol No.	Part No.	Part Name	Description
801	LG-3835RV0052P	Manual Assembly	VCR RCJ106M.NA1UJJ JVC ENG O/M
802	LG-3890R-C423P	Box Master	BOX SWM3 509 168 424 4 COLOR R
803	LG-3920R-E197A	Packing	MOLD EPS VCR RC1819 134 RCOMBI
806	LG-6850R-CAA2E	Cable Assembly	NTSC PLUG NTSC PLUG 1.2M 1P BL
808	-----	Dry Cell Battery	AAA(R03) 1PAIR 1.5V 50MAH AAA(x2)
811	LG-6850R-PAA2F	Cable Assembly	RCA PLUG RCA PLUG 1.2M 1P YELL
812	LG-6850R-PBA2H	Cable Assembly	RCA PLUG RCA PLUG 1.2M 2P RED/
900	LG-6711R1N218A	Remote Controller Assembly	V3 RCJ106M JVC

JVC



DVD RECORDER / VIDEO CASSETTE RECORDER

DR-MV7SU



For Customer Use :

Enter below the Model No. and
Serial No. which are located on the
rear of cabinet. Retain this
information for future reference.

Model No. _____

Serial No. _____

INSTRUCTIONS



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK
OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE
PERSONNEL.



This lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

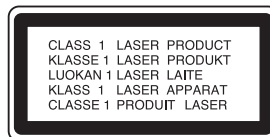
WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

CAUTION:

Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from over heating.

The openings should be never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instruction have been adhered to.



CAUTION:

This product employs a Laser System.

To ensure proper use of this product, please read this owner's manual carefully and retain it for future reference. Should the unit require maintenance, contact an authorized service center.

Performing controls, adjustments, or carrying out procedures other than those specified herein may result in hazardous radiation exposure.

To prevent direct exposure to laser beam, do not try to open the enclosure. Visible laser radiation when open. **DO NOT STARE INTO BEAM.**

CAUTION: The apparatus should not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, should be placed on the apparatus.

CAUTION: VISIBLE AND INVISIBLE CLASS 2M LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

FCC WARNING: This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

REGULATORY INFORMATION: FCC Part 15

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the product is operated in a residential installation. This product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception, which can be determined by turning the product off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the product and receiver.
- Connect the product into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION concerning the Power Cord

Most appliances recommend they be placed upon a dedicated circuit;

That is, a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page of this owner's manual to be certain.

Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in electric shock or fire. Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized servicer.

Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance.

To disconnect power from the mains, pull out the mains cord plug. When installing the product, ensure that the plug is easily accessible.

IMPORTANT SAFETY INSTRUCTIONS

CAUTION: PLEASE READ AND OBSERVE ALL WARNINGS AND INSTRUCTIONS IN THIS OWNER'S MANUAL. AND THOSE MARKED ON THE PRODUCT. RETAIN THIS BOOKLET FOR FUTURE REFERENCE.

This product has been designed and manufactured to assure personal safety. Improper use can result in electric shock or fire hazard. The safeguards incorporated in this product will protect you if you observe the following procedures for installation, use, and servicing.


This product does not contain any parts that can be repaired by the user.

DO NOT REMOVE THE CABINET COVER, OR YOU MAY BE EXPOSED TO DANGEROUS VOLTAGE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.

1. **Read these instructions.** - All these safety and operating instructions should be read before the product is operated.
2. **Keep these instructions.** - The safety, operating and use instructions should be retained for future reference.
3. **Heed all warnings.** - All warnings on the product and in the operating instructions should be adhered to.
4. **Follow all instructions.** - All operating and use instructions should be followed.
5. **Do not use this apparatus near water.** - For example: near a bath tub, wash bowl, kitchen sink, laundry tub, in a wet basement; or near a swimming pool; and other areas located near water.
6. **Clean only with dry cloth.** - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners.
7. **Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.** - Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from over- heating. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
8. **Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.**
9. **Do not defeat the safety purpose of the polarized or grounding-type plug.** A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. **Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.**
11. **Only use attachments/accessories specified by the manufacturer.**
12. **Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with apparatus. When a cart is used, use caution when moving the cart/product combination to avoid injury from tip-over.**
13. **Unplug this product during lightning storms or when unused for long periods of time.**
14. **Refer all servicing to qualified service personnel.** Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.



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Introduction

To ensure proper use of this product, please read this owner's manual carefully and retain for future reference.

About the Symbol Display

“” may appear on your TV display during operation and indicates that the function is not permitted by this unit or specific media.

Symbol Used in this Manual

Note: Indicates special notes and operating features.

Tip: Indicates tips and hints for making the task easier.

A section whose title has one of the following symbols are applicable only to those discs represented by the symbol.

DVD ALL All DVD discs listed below.

-RW_{VR} DVD-RW with VR recording mode

-RW_{Video} DVD-RW with Video recording mode

+RW DVD+RW disc

-R DVD-R disc

+R DVD+R disc

DVD DVD-Video disc

DivX DivX files

VCD Video CDs

ACD Audio CDs

MP3 MP3 files

WMA WMA files

JPEG JPEG files

Notes on Discs

Handling Discs

Do not touch the playback side of the disc. Hold the disc by the edges so that fingerprints do not get on the surface. Never stick paper or tape on the disc.

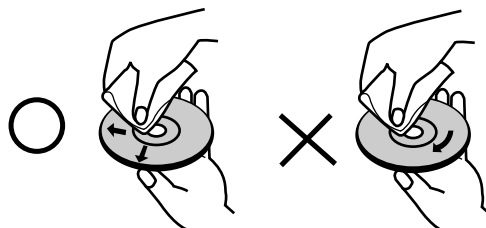


Storing Discs

After playing, store the disc in its case. Do not expose the disc to direct sunlight or sources of heat and never leave it in a parked car exposed to direct sunlight.

Cleaning Discs

Fingerprints and dust on the disc can cause poor picture quality and sound distortion. Before playing, clean the disc with a clean cloth. Wipe the disc from the center out.



Do not use strong solvents such as alcohol, benzene, thinner, commercially available cleaners, or anti-static spray intended for older vinyl records.

Moisture Condensation

Never operate this product immediately after moving it from a cold location to a warm location. Leave it for two or three hours without operating it. If you use this product in such a situation, it may damage discs/tapes and internal parts.

Recordable and Playable Discs



DVD-RW (DVD - ReWritable)

- DVD-RW discs can be formatted for VR mode recording or Video mode recording.
- These Discs can be recorded on repeatedly. Recordings can be erased, then you can record again on the same Disc.

[VR mode]

- Recordings can be extensively edited
- Playable only on VR mode compatible players (after finalization)

[Video mode]

- Playable on regular DVD players (after finalization)
- Limited editing features



DVD-R (DVD - Recordable)

- These Discs can be recorded only once. After you finalize a DVD-R, you cannot record on it or edit it.
- DVD-R discs can be only formatted to Video mode.
- Playable on regular DVD players (after finalization)
- Limited editing features



DVD+RW (DVD+ ReWritable)

- These Discs can be recorded on repeatedly. Recordings can be erased, then you can record again on the same Disc.
- Playable on DVD+RW compatible players (automatically finalization)
- The edited contents are playable on DVD+RW compatible players only after finalization.
- Recordings can be edited the title/chapter



DVD+R (DVD + Recordable)

- These Discs can be recorded only once. After you finalize a DVD+R, you cannot record on it or edit it any more.
- Playable on DVD+R compatible players (after finalization)
- Any edited contents are not be compatible on DVD+R compatible players. (Hide, chapter combine, added chapter mark, etc.)
- Limited title/chapter editing features.

Recommended recordable DVD discs

DVD-R	DVD+R	DVD-RW	DVD+RW
Mitsubishi (8x, 16x)	Mitsubishi (8x, 16x)	Mitsubishi (4x)	Mitsubishi (4x)
That's (8x, 16x)	Ricoh (8x, 16x)	Verbatim (4x)	SONY (4x)
Verbatim (8x)	Verbatim (8x)	JVC (4x)	Imation (4x)
-	-	Victor (4x)	Maxell (4x)
-	-	Maxell (4x)	Ricoh (4x)

Playable Discs



DVD (8 cm / 12 cm disc)

Discs such as movies that can be purchased or rented



Video CD (VCD) (8 cm / 12 cm disc)

VIDEO CDs or CD-Rs/CD-RWs in VIDEO CD/Super VIDEO CD format



Audio CD (8 cm / 12 cm disc)

Music CDs or CD-Rs/CD-RWs in music CD format that can be purchased



CD-R/CD-RW (8 cm / 12 cm disc)

CD-R/CD-RW discs that contain audio titles, MP3, WMA, JPEG or DivX files.

Notes:

- Depending on the conditions of the recording equipment or the CD-R/RW (or DVD±R/RW) disc itself, some CD-R/RW (or DVD±R/RW) discs cannot be played on the unit.
- Do not attach any seal or label to either side (the labeled side or the recorded side) of a disc.
- Do not use irregularly shaped CDs (e.g., heart-shaped or octagonal). Doing so may result in malfunctions.
- Depending on the recording software & the finalization, some recorded discs (CD-R/RW or DVD±R/RW) may not be playable.
- DVD-R/RW, DVD+R/RW and CD-R/RW discs recorded using a personal computer or a DVD or CD Recorder may not play if the disc is damaged or dirty, or if there is dirt or condensation on the Recorder's lens.
- If you record a disc using a personal computer, even if it is recorded in a compatible format, there are cases in which it may not play because of the settings of the application software used to create the disc. (Check with the software publisher for more detailed information.)
- This recorder requires discs and recordings to meet certain technical standards in order to achieve optimal playback quality. Pre-recorded DVDs are automatically set to these standards. There are many different types of recordable disc formats (including CD-R containing MP3 or WMA files) and these require certain pre-existing conditions (see above) to ensure compatible playback.
- Customers should note that permission is required in order to download MP3 / WMA files and music from the Internet. Our company has no right to grant such permission. Permission should always be sought from the copyright owner.

Regional Code

This unit has a regional code printed on the rear of the unit. This unit can play only DVD discs labeled same as the rear of the unit or "ALL".

Notes on Regional Codes

- Most DVD discs have a globe with one or more numbers in it clearly visible on the cover. This number must match your unit's regional code or the disc cannot play.
- If you try to play a DVD with a different regional code from the unit, the message "Incorrect region code. Can't play back."

Restrictions on video recording

- You cannot record copy-protected video using this recorder. Copy-protected video includes DVD-Video discs and some satellite broadcasts. If copy-protected material is encountered during a recording, recording will pause or stop automatically and an error message will be displayed on-screen.
- Video that is 'copy-once only' can only be recorded using a DVD-RW disc in VR mode with CPRM (see below).

What is 'CPRM'?

CPRM is a copy protection system (with scramble system) only allowing the recording of 'copy once' broadcast programs. CPRM stands for Content Protection for Recordable Media.

This Recorder is CPRM compatible, which means that you can record copy-once broadcast programs, but you cannot then make a copy of those recordings. CPRM recordings can only be made on DVD-RW discs formatted in VR mode and CPRM recordings can only be played on players that are specifically compatible with CPRM.

Copyright

- Recording equipment should be used only for lawful copying and you are advised to check carefully what is lawful copying in the area in which you are making a copy. Copying of copyright material such as films or music is unlawful unless permitted by a legal exception or consented to by the rights owner.
- This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only, unless otherwise authorized by Macrovision corporation. Reverse engineering or disassembly is prohibited.

Notice for Progressive Scan Use

CONSUMERS SHOULD NOTE THAT NOT ALL HIGH DEFINITION TELEVISION SETS ARE FULLY COMPATIBLE WITH THIS PRODUCT AND MAY CAUSE ARTIFACTS TO BE DISPLAYED IN THE PICTURE. IN CASE OF 525 PROGRESSIVE SCAN PICTURE PROBLEMS, IT IS RECOMMENDED THAT THE USER SWITCH THE CONNECTION TO THE 'STANDARD DEFINITION' OUTPUT. IF THERE ARE QUESTIONS REGARDING YOUR TV SET COMPATIBILITY WITH THIS MODEL 525p VCR/DVD RECORDER, PLEASE CONTACT OUR CUSTOMER SERVICE CENTER.

About the Remote Control

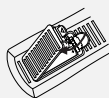
Operation Range

Point the Remote Control at the remote sensor and press the buttons.

Distance: About 23 ft (7 m) from the front of the remote sensor.

Angle: About 30° in each direction of the front of the remote sensor.

Battery installation

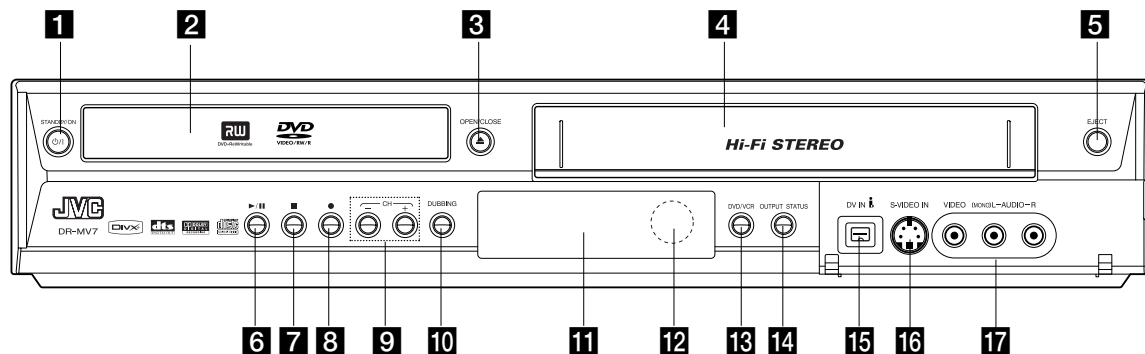




Detach the battery cover on the rear of the Remote Control, and insert two (R03/AAA) size batteries with ⊕ and ⊖ aligned correctly.



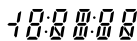


Do not mix old and new batteries and never mix different types of batteries such as standard, alkaline, etc.

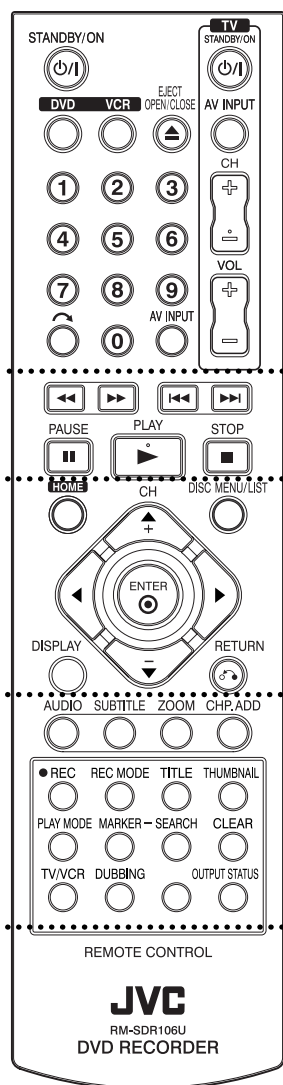
Front Panel



- 1** **STANDBY/ON** (⏻/⏻)
Switches the Recorder ON and OFF.
- 2** **Disc Tray (DVD deck)**
Insert a disc here.
- 3** **▲ OPEN/CLOSE**
Opens or closes the disc tray.
- 4** **Cassette Compartment (VCR deck)**
Insert a video cassette here.
- 5** **▲ EJECT**
Ejects the tape in the VCR deck.
- 6** **▶ / II (PLAY / PAUSE)**
Starts playback.
Pause playback or recording temporarily, press again to exit pause mode.
- 7** **■ (STOP)**
Stops playback.
- 8** **● (REC)**
Starts recording.
Press repeatedly to set the recording time.
- 9** **CH (- / +)**
Scans up or down through memorized channels.
- 10** **DUBBING**
Press to copy DVD to VCR (or VCR to DVD).
Lights when the Recorder is dubbing.
- 11** **Display window**
Shows the current status of the Recorder.
 Lights when a disc is in the DVD deck.
DVD The DVD deck is selected.
 Lights when recorder is in playing mode or flashes when search mode.

- VCR** The VCR deck is selected.
-  Indicates when the recorder is in timer recording or a timer recording is programmed.
-  A VHS tape is inserted in the VCR deck.
- REC** The recorder is recording.
- PM** Indicates PM time. (AM is not displayed.)
- TV** Indicates that TV mode is active.
-  Indicates total playing time, elapsed time, remaining time or current deck status.
- 12** **Remote Sensor**
Point the recorder Remote Control here.
- 13** **DVD/VCR**
Toggles control between the DVD deck and the VCR deck.
- 14** **OUTPUT STATUS**
Sets the HDMI's output resolution to 1080i, 720p, 480p or 480i formats for your TV or Monitor.
Set the Component video output's resolution to 480p or 480i format for your TV or Monitor.
- 15** **DV IN**
Connect the DV output of a digital camcorder.
- 16** **S-VIDEO IN**
Connect the S-Video output of an external source (TV/ Monitor, VCR, Camcorder, etc.).
- 17** **VIDEO /AUDIO (L(mono)/R)**
Connect the audio/video output of an external source (Audio system, TV/ Monitor, VCR, Camcorder, etc.).

Remote Control



1 Skips 30 seconds forward during playback.

AV INPUT

Changes the input to use for recording (Tuner, AV1, AV2, or DV IN).

JVC TV Control Buttons

- **STANDBY/ON**: Turns the TV on or off.
- **AV INPUT**: Selects the TV's source.
- **CH +/-**: Selects TV's channel.
- **VOL +/-**: Adjusts TV's volume.

2 **2**



- **DVD**: Search backward or forward.
- **VCR**: Rewinds/Advances the tape during the STOP mode, for fast reverse/ forward picture search.



Go to next chapter or track. Returns to beginning of current chapter or track or go to previous chapter or track.

PAUSE (II)

Pause playback or recording temporarily.

Press repeatedly for frame-by-frame playback.

PLAY (▶)

Starts playback.

STOP (■)

Stops playback or recording.

3 **3**

HOME : Accesses or removes the HOME menu.

DISC MENU/LIST

Accesses menu on a DVD disc, Title List or Playlist menu.

CH (▲▼)

Selects a channel. Adjusts manually the tape's picture onscreen.

◀▶▲▼ (left/right/up/down)

Selects menu options.

ENTER (⊙)

Confirms menu selections.

DISPLAY

Accesses On-Screen Display.

Displays information of current status.

RETURN (↶)

Removes the menu.

4 **4**

AUDIO

Selects an audio language or an audio channel.

SUBTITLE

Selects a subtitle language.

ZOOM

Enlarges DVD video image.

CHP. ADD

Inserts a chapter marker when playing/recording.

● REC

Starts recording. Press repeatedly to set the recording time.

REC MODE

Selects the recording mode:

- **DVD** : SP, LP, EP or XP.
- **VCR** : SP or SLP.

TITLE

Displays the disc's Title menu, if available.

THUMBNAIL

Selects a thumbnail picture for the current title for use in the Title List menu.

PLAY MODE

Selects play mode.

MARKER

Marks any point during playback.

SEARCH

Displays Marker Search menu.

CLEAR

Removes a mark on the Marker Search menu.

TV/VCR

To view channels selected by the VCR tuner or by the TV tuner.

DUBBING

Press to copy DVD to VCR (or VCR to DVD).

OUTPUT STATUS

Sets the output resolution for HDMI and Component video out.

1 **1**

STANDBY/ON (⏻/⏻)

Turns Recorder ON and OFF.

DVD

Select the Recorder's function mode to DVD.

VCR

Select the Recorder's function mode to VCR.

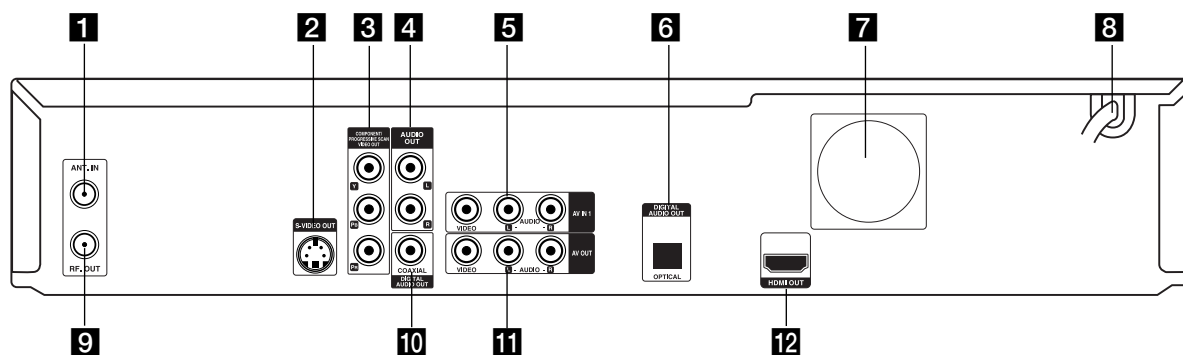
EJECT, OPEN/CLOSE (⏏)

- Opens and closes the disc tray.
- Ejects the tape in the VCR deck.

0-9 numerical buttons

- Selects numbered options in a menu.
- Inputs channel numbers.

Rear Panel



- | | |
|--|---|
| <p>1 ANT. IN
Connect the antenna to this terminal.</p> <p>2 S-VIDEO OUT
Connect to a S-Video Input on TV.</p> <p>3 COMPONENT/PROGRESSIVE SCAN VIDEO OUT (Y Pb Pr)
Connect to a TV with Y Pb Pr inputs.</p> <p>4 AUDIO OUT (Left/Right)
Connect to a TV or other equipment with audio inputs.</p> <p>5 AV IN 1 (VIDEO IN /AUDIO IN (Left/Right))
Connect the audio/video output of an external source (Audio system, TV/Monitor, VCR, Camcorder).</p> <p>6 OPTICAL (DIGITAL AUDIO OUT jack)
Connect to digital (optical) audio equipment.</p> | <p>7 Cooling fan</p> <p>8 AC Power Cord
Plug into the power source.</p> <p>9 RF. OUT
Connect to a TV with RF coaxial inputs.</p> <p>10 COAXIAL (DIGITAL AUDIO OUT jack)
Connect to digital (coaxial) audio equipment.</p> <p>11 AV OUT (VIDEO OUT / AUDIO OUT (Left/Right))
Connect to a TV with video and audio inputs.</p> <p>12 HDMI OUT
HDMI output providing a high quality interface for digital audio and video.</p> |
|--|---|



Caution

Do not touch the inner pins of the jacks on the rear panel. Electrostatic discharge may cause permanent damage to the unit.

Hookup and Settings

Depending on your TV and other equipment there are various ways you can connect the recorder. Please refer to the manuals of your TV, VCR, Stereo System or other devices as necessary for additional connection information.

Notes:

- Make sure the Recorder is connected directly to the TV and tune the TV to the correct video input channel.
- Do not connect the Recorder's AUDIO OUT jack to the phono in jack (record deck) of your audio system. Do not connect the Recorder via another VCR. The DVD image could be distorted by the copy protection system.
- The picture and sound of a nearby TV, VCR, or radio may be distorted during playback. Position the units away from each other or turn off the unit after removing the disc.

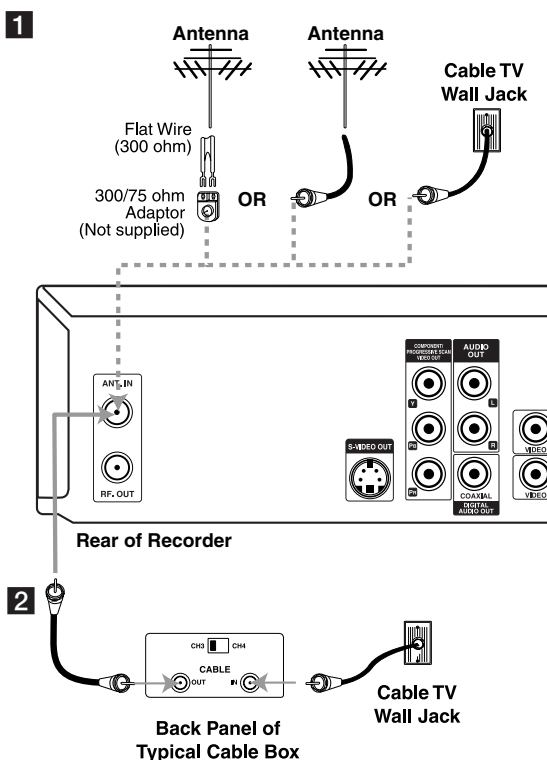
Connecting an Antenna or Cable TV

1 Antenna:

Disconnect the antenna from the rear of the TV and identify the antenna cable. If it is a round 75 ohm coaxial cable connect it directly to the jack marked ANT. IN on your Recorder. If your antenna cable is flat connect it to a 300-ohm to 75-ohm antenna adaptor (not supplied) and slip the adaptor over the ANT. IN jack. Don't attempt to screw it into the Recorder.

2 Cable TV:

If your cable connection has no converter or descrambler, unscrew the cable from your TV and attach it to the ANT. IN jack on the Recorder. If a converter is required connect a coaxial cable from the wall jack to the IN connector on the converter, and a coaxial cable from the OUT connector on the converter to the ANT. IN on your Recorder. This cable hookup permits both TV and Recorder operation.



To view or record a CATV channel

1. Tune the TV to the Recorder output channel (CH 3 or 4).
2. Set the Recorder channel selector to the cable output channel. (Example: CH3)
3. Select a channel using the cable converter.

Notes:

- With this connection, you cannot record one program while viewing another.
- If you are using a cable box to tune channels, it is not necessary to do Auto Channel Set.

Connections to your TV

Make one of the following connections, depending on the capabilities of your TV.

RF coaxial connection

Connect the RF OUT jack on the Recorder to the antenna in jack on the TV using the supplied 75-ohm Coaxial Cable (R).

How to set the Recorder's RF output channel

1. When the Recorder is turned off, press and hold CH (- / +) on the front panel for more than five seconds. [RF03] or [RF04] appears in the display window.
2. Press CH (- / +) to change the RF output channel (RF03 or RF04).
3. Tune the TV to this channel.

Video connection

Connect the VIDEO OUT jack on the Recorder to the video in jack on the TV using the video cable supplied (V).

Note:

If you use this connection, set the TV's source selector to VIDEO.

S-Video connection

Connect the S-VIDEO OUT jack on the Recorder to the S-Video in jack on the TV using an optional S-Video cable (S).

Component Video / Progressive Scan connection

If your television is a high-definition or "digital ready" television, you may take advantage of the Recorder's progressive scan output for higher video resolution.

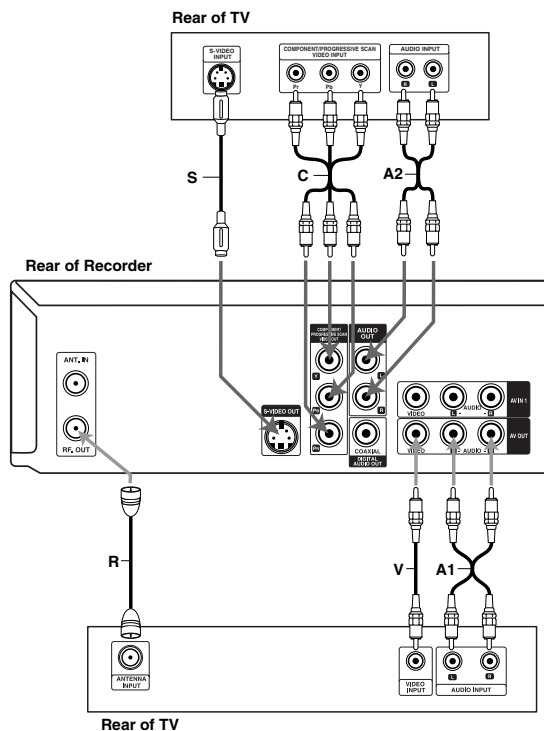
Connect the COMPONENT/PROGRESSIVE SCAN VIDEO OUT jacks on the Recorder to the corresponding in jacks on the TV using an optional Y Pb Pr cable (C).

Notes:

- Set the resolution to 480p using OUTPUT STATUS button for progressive signal.
- Progressive Scan does not work with the RF, Audio/Video or S-Video connections.
- If your TV does not accept the Progressive Scan format, the picture will appear scrambled.
- If the resolution is set to 720p or 1080i, the VIDEO OUT, S-VIDEO OUT and COMPONENT VIDEO OUT connections are not available.
- The TV aspect ratio is different in resolution setting. "16:9" for 720p/1080i resolution and "4:3" for 480p/480i resolution.

Audio connection

Connect the Left and Right AUDIO OUT jacks on the Recorder to the audio left/right in jacks on the TV using the supplied audio cables (A1 or A2).



HDMI connection

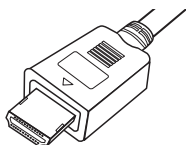
If you have a HDMI TV or monitor, you can connect it to this recorder using a HDMI cable.

1. Connect the HDMI OUT jack on the recorder to the HDMI jack on a HDMI compatible TV or monitor (H).
2. Set the TV's source to HDMI (refer to TV's Owner's manual).

Notes:

- If your TV is NOT capable of handling 96 kHz sampling frequency, set the [Sampling Freq.] option to [48 kHz] on the setup menu (See page 22). When this choice is made, this unit will automatically convert any 96 kHz signals to 48 kHz so your system can decode them.
- If your TV is not equipped with Dolby Digital and MPEG decoder, set the [Dolby Digital] and [MPEG] options to [PCM] on the setup menu (See page 22).
- If your TV is not equipped with DTS decoder, set the [DTS] options to [OFF] on the setup menu (See page 22). To enjoy DTS multi channel surround, you must connect this recorder to a DTS compatible receiver via one of this recorder's digital audio outputs.
- The arrow on the cable connector body should face up for correct alignment with the connector on the recorder.

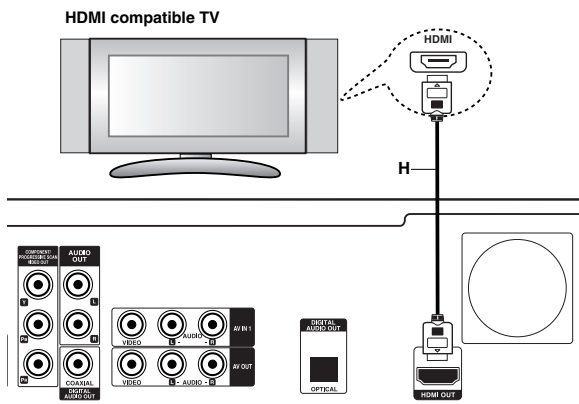
(Type A)



- If there is noise or lines on the screen, please check the HDMI cable.
- If the resolution is set to 720p or 1080i in HDMI mode, the screen aspect ratio will be changed from 4:3 to 16:9 wide screen. In this case, change the aspect ratio of your TV.
- The output from the AV OUT and S-VIDEO OUT can not be obtained when the resolution is set to 720p or 1080i.
- The picture from the AV OUT and S-VIDEO OUT may not be obtained correctly when the resolution is set to 480p. In this case, press OUTPUT STATUS repeatedly to set the resolution to 480i.
- The green flash noise may appear on the screen when turning on the TV power, connecting an HDMI cable or changing input mode. It is a symptom of signal detecting process, not a malfunction.
- Changing the resolution when the recorder is connected with HDMI connector may result in malfunctions. To solve the problem, turn off the recorder and then turn it on again or change the resolution.

Tip :

When you use HDMI connection, you can change the resolution (480i, 480p, 720p, or 1080i) for the HDMI output using OUTPUT STATUS button.



About HDMI

HDMI (High Definition Multimedia Interface) supports both video and audio on a single digital connection for use with DVD Players, Set-Top Boxes, and other AV devices.

HDMI was developed to provide the technologies of HDCP (High Definition Contents Protection). HDCP is used to protect digital content transmitted and received.

HDMI has the capability to support standard, enhanced, or high-definition video plus standard to multi-channel surround-sound audio. HDMI features include uncompressed digital video, a bandwidth of up to 5 gigabytes per second, one connector (instead of several cables and connectors), and communication between the AV source and AV devices such as DTVs.

HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI licensing LLC.

Additional Information for HDMI

- When you connect a HDMI or DVI compatible device make sure of the followings:
 - Try switching off the HDMI/DVI device and this recorder. Next, switch on the HDMI/DVI device and leave it for around 30 seconds, then switch on this recorder.
 - The connected device's video input is set correctly for this unit.
 - The connected device is compatible with 720(1440)x480i, 720x480p, 1280x720p or 1920x1080i video input.
- Not all HDCP-compatible DVI devices will work with this recorder.
- The picture will not be displayed properly with non-HDCP devices.

Connection to an Amplifier

Connecting to an amplifier equipped with two channel analog stereo or Dolby Pro Logic II/Pro Logic

Connect the Left and Right AUDIO OUT (or AV OUT AUDIO) jacks on the Recorder to the audio left and right in jacks on your amplifier, receiver, or stereo system using the audio cables (A) supplied.

Connecting to an amplifier equipped with two channel digital stereo (PCM) or to an Audio/Video receiver equipped with a multi-channel decoder (Dolby Digital™, MPEG 2, or DTS)

1. Connect one of the Recorder's DIGITAL AUDIO OUT jacks (OPTICAL O, COAXIAL X) to the corresponding in jack on your amplifier. Use an optional digital (OPTICAL O, COAXIAL X) audio cable.
2. You will need to activate the Recorder's digital output. (See [Audio Settings] on page 22).

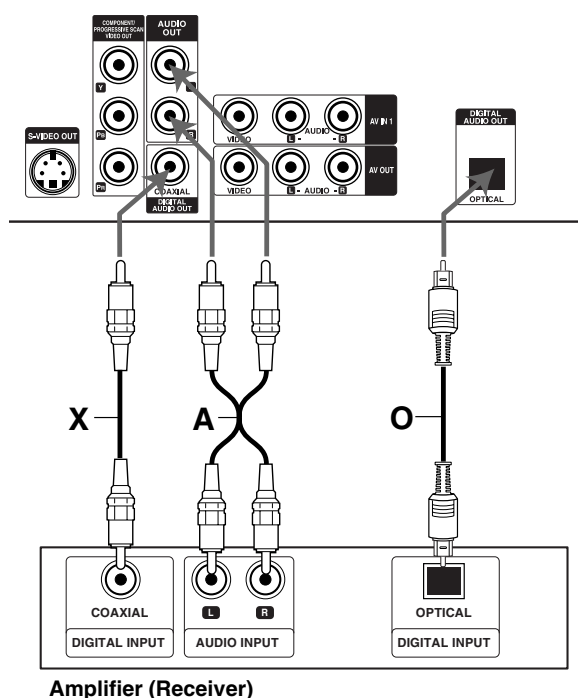
Digital Multi-channel sound

A digital multi-channel connection provides the best sound quality. For this you need a multi-channel Audio/Video receiver that supports one or more of the audio formats supported by your Recorder (MPEG 2, Dolby Digital and DTS). Check the receiver manual and the logos on the front of the receiver.

Notes:

- Due to the DTS Licensing agreement, the digital output will be in DTS digital out when DTS audio stream is selected.
- If the audio format of the digital output does not match the capabilities of your receiver, the receiver will produce a strong, distorted sound or no sound at all.
- Six Channel Digital Surround Sound via digital connection can only be obtained if your receiver is equipped with a Digital Multi-channel decoder.
- To see the audio format of the current DVD in the on-screen display, press AUDIO.
- This Recorder does not perform internal (2 channel) decoding of a DTS sound track. To enjoy DTS multi channel surround, you must connect this Recorder to a DTS compatible receiver via one of this Recorder's digital audio outputs.

Rear of Recorder



Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories.

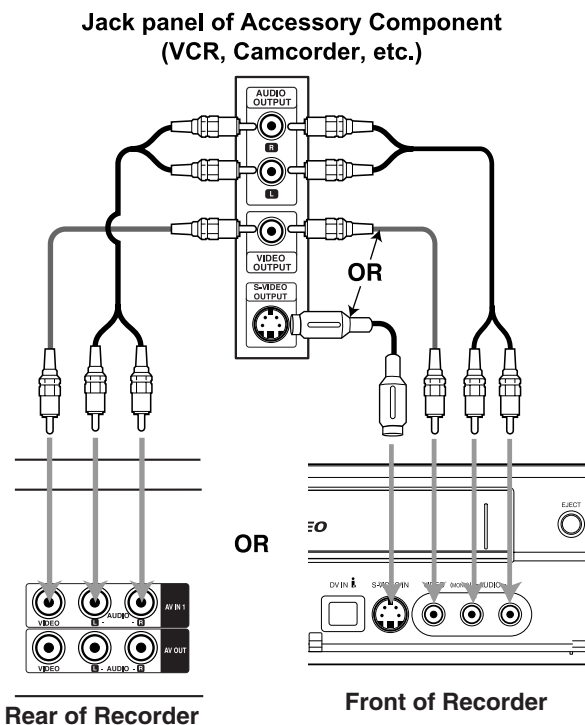
DTS and DTS Digital Out are trademarks of Digital Theater Systems, Inc.

Accessory Audio/Video (A/V) Connections to Recorder

Connect the AV IN jacks on the Recorder to the audio/video out jacks on your accessory component, using the optional audio/video cables. (Refer to page 40 for [Recording from External Components].)

Note:

If you use the S-VIDEO IN jack on the front panel, the VIDEO IN jack on the front panel is not available.

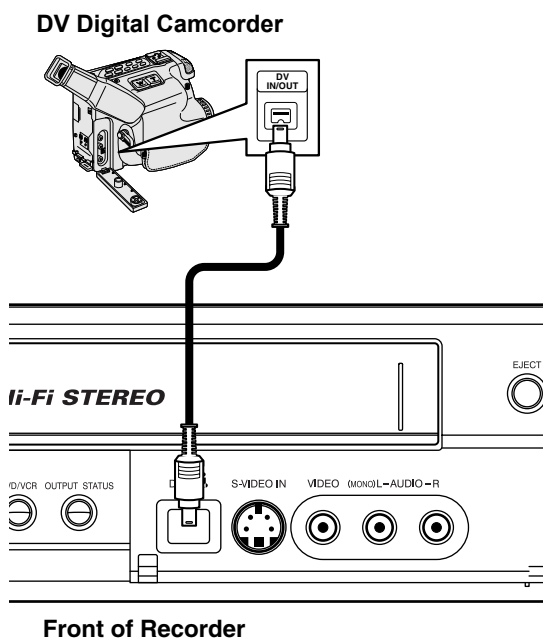


Connecting a Digital Camcorder

Use a DV cable (not supplied) to connect the DV in/out jack of your DV Digital Camcorder to the front panel DV IN jack of this Recorder.

Notes:

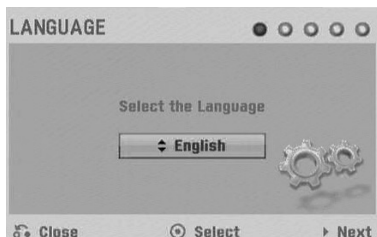
- This jack is for connection to DV equipment only. It is not compatible with digital satellite tuners or D-VHS video decks.
- Some camcorder or devices other than camcorder may not be operated properly with this unit.



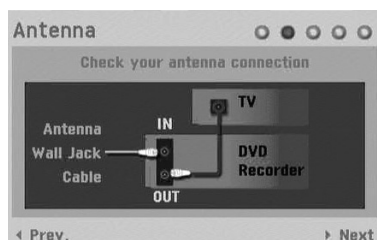
Initial Setup Wizard

When STANDBY/ON is pressed for the first time to turn the unit on, the Initial Setup Wizard function sets the Language, Channels and Clock.

1. Use ▲ / ▼ to select a language for the Setup menu and information display and then press ENTER.



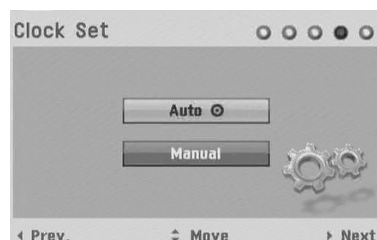
2. Check your antenna connections. Press ► to move next step.



3. Press ENTER to begin the channel search.



4. Select [Auto] or [Manual] Clock Set option then press ENTER.



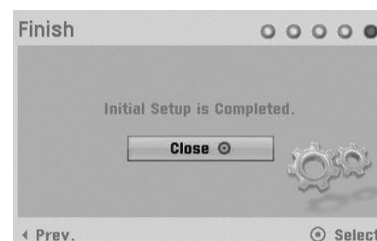
Auto

1. Use ▲ / ▼ to choose your Time Zone manually.
2. Use ► to choose the [Daylight Savings] option. Use ▲ / ▼ to choose Auto, ON, or OFF.
3. Press ENTER to confirm your setting.

Manual

1. Enter the necessary information for year, date and time.
◀ / ▶ (left/right): Moves the cursor to the previous or next column.
▲ / ▼ (up/down): Changes the setting at the current cursor position.
2. Press ENTER to confirm your setting.

5. Press ENTER to complete the Setup Wizard.



Note:

You can reset the Initial Setup Wizard from the [Factory Set] in the setup menu.(see page 21).

Using the Home Menu

From the Home Menu screen you can access all the Media for playback and recording of the recorder.

1. Press HOME and the Home menu appears.



2. Use ◀ / ▶ to select the desired main option.
3. Use ▲ / ▼ to select the desired Sub option then press ENTER to confirm your selection.
4. To exit the HOME menu, press HOME.

Setup

- **Start:** Displays Setup menu.

TV

- **Auto Ch. Scan** : Displays [Auto Channel Set] menu. (See page 20)
- **Ch. Edit** : Displays [CH. Add/Del] menu. (See page 20)
- **Timer Record** : Displays [Timer Record] menu. (See page 37)

Movie

- **VCR:** Plays back VHS cassette.
- **DISC:**
 - Displays TITLE LIST menu for recordable disc (page 42)
 - Displays Movie menu for DivX disc. (page 31)
 - Plays back Video Disc or DVD-Video disc (page 28-30).

Photo (See page 33)

- **DISC:** Displays [Photo] menu for disc.

Music (See page 32)

- **DISC:** Displays Music (or Audio CD) menu for disc.

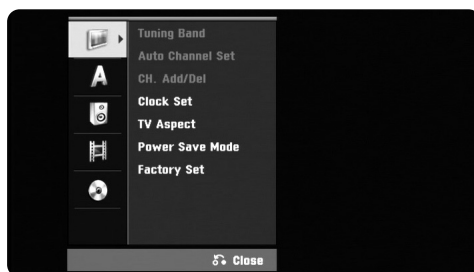
Easy Menu

- **Dubbing** : Displays [Dubbing] menu.
- **Disc Manager** : Displays Disc Setup menu.
- **Rec. Mode** : Displays Record Mode setup menu.
- **DV Input** : Change to DV Input mode.

Initial Settings

In this menu system, there are several ways to customize the settings provided. Most menus consist of three levels to set up the options, but some require greater depth for the variety of settings.

1. Press HOME and the Home menu appears.
2. Select [Setup] > [Start] and press ENTER.



3. Use ▲ / ▼ to select the desired option.
4. While the desired item is selected, press ▶ to move to the second level.
5. Use ▲ / ▼ to select the second desired option.
6. Press ▶ to move to the third level.
7. Use ▲ / ▼ to select the desired setting then press ENTER to confirm your selection. Some items require additional steps.
8. Press RETURN (↵) or HOME to exit the Setup menu.

Note:

Press ◀ to go back to the previous level.

General Settings

Tuning Band Select

1. Select the [Tuning Band] option then press ►.
2. Use ▲ / ▼ to select the tuning band (TV or CATV) option then press ENTER.
TV: If you are using a standard antenna to receive channels.
CATV: If you are using basic cable to receive channels.



Auto Channel Set

Connect the Recorder to the desired type of antenna or cable TV system as shown on page 13.

This Recorder is equipped with a frequency synthesized tuner capable of receiving up to 181 channels. These include VHF channels 2-13, UHF channels 14-69 and CATV channels 1-125.

1. Select the [Auto Channel Set] option.
2. Press ► to move to the third level. [Start] icon is highlighted.
3. Press ENTER to begin the channel search. The tuner will automatically cycle through all available channels in the area and place them in the tuner's memory.

Note:

After the Auto Channel Set proceeding is complete, make sure the Tuning Band is set appropriately (TV or CATV) on tuning band, follow steps 1~2 as shown previous (Tuning Band Select) to choose the correct Tuning Band (TV or CATV).

To Add or Erase Channels

This feature allows you to add to or erase channels from memory manually.

1. Select the [CH. Add/Del] option.
2. Press ► to move to the third level. [Edit] icon is highlighted.
3. Press ENTER and the Channel Edit menu appears.



4. Use ▲ / ▼ or number buttons to select a channel then press ►.
5. If you want to obtain a clearer picture, tune the [MFT] option using ▲ / ▼ then press ►. [Add] or [Delete] icon is highlighted.
6. Press ENTER to confirm your setting.
7. Repeat steps 4-6 to add or erase additional channels.
8. Press HOME or RETURN (↵) to exit the menu.

Clock Set

Auto

In the Auto option, the Recorder looks for a channel carrying XDS (Extended Data Services) information. XDS updates the clock using the Coordinated Universal Time.

1. Select the [Clock Set] > [Auto] option.
2. Press ENTER.
3. Use ▲ / ▼ to choose your Time Zone manually. When Timezone is set to Auto, the Recorder will use XDS information to determine the proper setting.
4. Use ► to choose the [Daylight Savings] option. Use ▲ / ▼ to choose Auto, ON, or OFF. When it is set to Auto, the Recorder will use XDS information to determine the proper setting.
5. Press ENTER to confirm your setting.
6. Press HOME to exit the Setup menu.

Notes :

- The Auto Clock Feature enables the Recorder to set up the clock when the Recorder is turned off.
- The "Auto Clock" function may not be operated properly. This is a performance of the unit, not a malfunction.

Manual

If your local TV station does not send date and time information, or sends incorrect information, you can set the clock manually.

1. Select the [Clock Set] > [Manual] option.
2. Press ENTER.
3. Enter the necessary information for year, date and time.
 ◀ / ▶ (left/right): Moves the cursor to the previous or next column.
 ▲ / ▼ (up/down): Changes the setting at the current cursor position.
4. Press ENTER to confirm your setting.
5. Press HOME to exit the Setup menu.

TV Aspect

4:3 Letter Box:

Select when a standard 4:3 TV is connected. Displays theatrical images with masking bars above and below the picture.

4:3 Pan Scan:

Select when a standard 4:3 TV is connected. Displays pictures cropped to fill your TV screen. Both sides of the picture are cut off.

16:9 Wide:

Select when a 16:9 wide TV is connected.

Power Save Mode

Set Power Save Mode to [ON] to place your Recorder into an economic power save mode. Nothing is displayed in the display window when the unit is turned off.

Factory Set

You can reset the Recorder to its original factory settings.

1. Select the [Factory Set] option.
2. Press ▶ to select [SET] then press ENTER.
3. Select [OK] and press ENTER.
4. Follow the Initial Setup Wizard on page 18.

Language Settings

Display Menu

Select a language for the Setup menu and information display.



Disc Menu / Audio / Subtitle

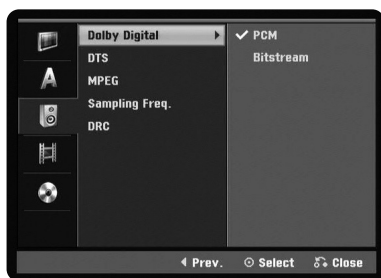
[Original] : Refers to the original language in which the disc was recorded.

[Others] : To select another language, press number buttons to enter the corresponding 4-digit number according to the language code list in the reference chapter (see page 50). If you enter the wrong language code, press CLEAR.

[OFF] (for Disc Subtitle) : Turn off Subtitle.

Audio Settings

Each DVD disc has a variety of audio output options. Set the Recorder's Audio Output according to the type of audio system you use.



Dolby Digital / DTS / MPEG

[Bitstream]: Select [Bitstream] if you connect the DVD+VCR's DIGITAL AUDIO OUT jack to an amplifier or other equipment with a Dolby Digital, DTS or MPEG decoder. The TV. HDMI audio cannot be heard from the HDMI connection. In this case, change the Audio setting to "PCM" to solve the problem.

[PCM] (for Dolby Digital / MPEG): Select when connected to a two-channel digital stereo amplifier. DVDs encoded in Dolby Digital or MPEG will be automatically downmixed to two-channel PCM audio.

[OFF] (for DTS): If you select [OFF], the DTS signal is not output through the DIGITAL AUDIO OUT jack.

Sampling Freq. (Frequency)

If your receiver or amplifier is NOT capable of handling 96 kHz signals, select 48 kHz. When this choice is made, this unit automatically converts any 96 kHz signals to 48 kHz so your system can decode them.

If your receiver or amplifier is capable of handling 96 kHz signals, select 96 kHz. When this choice is made, this unit passes each type of signal through without any further processing.

Check the documentation for your amplifier to verify its capabilities.

DRC (Dynamic Range Control)

With the DVD format, you can hear a program's soundtrack in the most accurate and realistic presentation possible, thanks to digital audio technology. However, you may wish to compress the dynamic range of the audio output (the difference between the loudest sounds and the quietest ones). This allows you to listen to a movie at a lower volume without losing clarity of sound. Set DRC to [ON] for this effect.

Recording Settings

Disc Record Mode

You can set the picture quality for recording; XP (Excellent quality), SP (Standard quality), LP (Low quality), EP (Extend quality).



1. Select the [Disc Record Mode] option then press **▶**.
2. Use **▲** / **▼** to select a desired Disc Record Mode (XP, SP, LP or EP).
3. Press ENTER to confirm your selection, then press HOME to exit the menu.

VCR Record Mode

You can set the picture quality for VCR recording; SP (Standard Play), SLP (Super Long Play).

DV Record Audio

You need to set this if you have a camcorder using 32kHz/12-bit sound connected to the front panel DV IN jack. Some digital camcorders have two stereo tracks for audio. One is recorded at the time of shooting; the other is for overdubbing after shooting. On the Audio 1 setting, the sound that was recorded while shooting is used. On the Audio 2 setting, the overdubbed sound is used.

Auto Chapter

During recording, chapter markers are added automatically at fixed intervals. You can set this interval to 5 minutes or 10 minutes. To turn off automatic chapter marking, select [None].

Disc Settings

Initialize

If you load a completely blank disc, the recorder will initialize the disc.

- DVD-R: The recorder initialize the disc to Video mode. The recording mode will always be Video mode.
- DVD-RW/DVD+RW/DVD+R: The Initialize menu will appear. Select [OK] then press ENTER. DVD-RW disc is initialized to Video mode.

Also, you can reformat the DVD-RW/+RW from the Setup menu as below.



1. Select the [Initialize] option then press ►. [Start] icon is highlighted.
2. Press ENTER.
- In case of DVD-RW, use ◀ / ▶ to select a desired Disc Initialize Mode (VR Mode or Video Mode) then press ENTER.
- In case of DVD+RW use ◀ / ▶ to select [OK], and press ENTER.
It takes a few moments to format the disc.

Note:

If you want to change the disc format, everything recorded on the disc will be erased.

Finalize

Finalizing 'fixes' the recordings in place so that the disc can be played on a regular DVD player or computer equipped with a suitable DVD-ROM drive. Finalizing a Video mode disc creates a menu screen for navigating the disc. This is accessed by pressing DISC MENU/LIST or TITLE.

1. Select the [Finalize] option then press ►.
2. Press ENTER while [Finalize] is selected. Finalize menu appears.
3. Select [OK] then press ENTER.
The Recorder starts finalizing the disc.

Notes:

- Once you have finalized a DVD-R and DVD+R disc, you cannot edit or record anything else on that disc except DVD+RW. However, you can record and edit a DVD-RW disc by choosing [Unfinalize] option.
- Finalization can take up to 3-4 minutes or more depending on the type of disc, how much is recorded on the disc, and the number of titles on the disc.

Tips:

- If you load a DVD-RW that has already been finalized, you can 'Unfinalize' it by choosing [Unfinalize] from the Finalize menu. After doing this, you can edit and re-record onto the disc.
- You cannot unfinalize a DVD-R, DVD+R and DVD+RW disc.
- If [Disc Protect] option is set to [ON], the finalize is not available. To finalize, set [Disc Protect] option to [OFF].

Disc Label

Use the Disc Label feature to enter a name for the disc. This name appears when you load the disc and when you display disc information on-screen.

- The Disc label can be up to 32 characters long.
 - For discs formatted on a different Recorder, you will see only a limited character set.
1. Select the [Disc Label] option then press ►. [Edit] icon is highlighted.
 2. Press ENTER.
Keyboard menu appears.
To enter characters, see page 46.

Disc Protect

Depending on the type of disc you are using, Disc Protect allows you to preserve your recordings in a variety of ways:

- DVD+RW : Prevents editing, erasing, overwriting of existing recordings and regular recording.
- DVD+R/DVD-RW (VR mode): Prevents editing, erasing and regular recording.

Notes:

- Disc Protect is not compatible with DVD-RW discs in Video mode or DVD-R discs.
- If you need to unlock a disc to make edits, select [OFF].

PBC

PBC stands for Playback Control and refers to special menus and navigation features that are available on some Video CDs.

[ON]: Video CDs are played according to the PBC, if available.

[OFF]: Video CDs are played the same way as Audio CDs.

AutoPlay

When you load a DVD with AutoPlay turned on, the Recorder will bypass the Disc menu and trailers and start playing the movie automatically. Set [AutoPlay] to [ON] or [OFF].

DivX Registration Code **DivX**

We provide you the DivX® VOD (Video On Demand) registration code that allows you to rent and purchase videos using the DivX® VOD service. For more information, visit www.divx.com/vod.

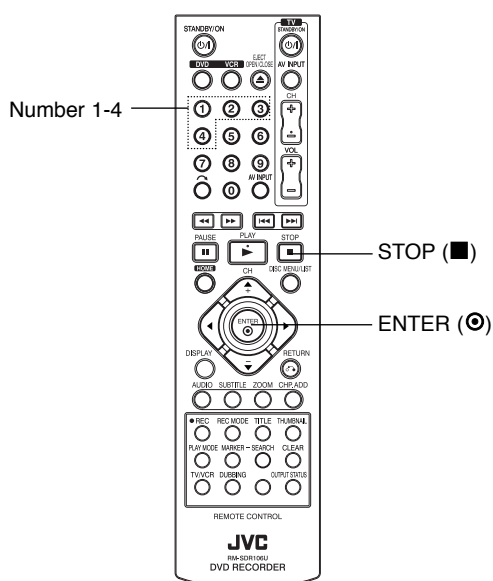
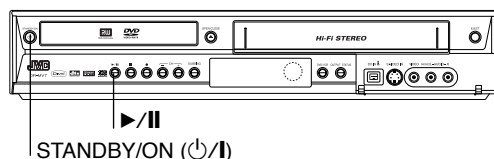
1. Select [About DivX(R)] option then press ►.
2. Press ENTER while [Enter] is selected and the registration code will appear.
3. Use the registration code to purchase or rent the videos from Divx® VOD service at www.divx.com/vod. Follow the instructions and download the video onto a disc for playback on this unit.

Note:

All the downloaded videos from DivX® VOD can only be played back on this unit.

Remote Control Function Remote Control A/B/C/D Code Switching

The remote control is capable of controlling four JVC video units independently. Each of the units can respond to one of four codes (A, B, C or D). The remote control is preset to send C code signals because your unit is initially set to respond to C code signals. You can easily modify your unit to respond to A, B or D code signals.



1. Press STANDBY/ON (⏻/I) on the unit to turn off the unit with no video tape inserted.
2. Press the number key "1" for A, "2" for B, "3" for C or "4" for D **while** pressing ENTER (⊙) down on the remote control.
3. Press ►/II on the unit for over 5 seconds while the unit is turned off. The current code appears on the display window.
4. Press STOP (■) on the remote control, the current code on the display window changes to new code and blinks for approximately 10 seconds.
5. The new code setup on unit and remote is done.

Note:

If the power is interrupted, the remote control code of this unit will change to "C". You should reset the remote control code, if you want to change the code to A, B or D.

General Explanation of On-Screen Display

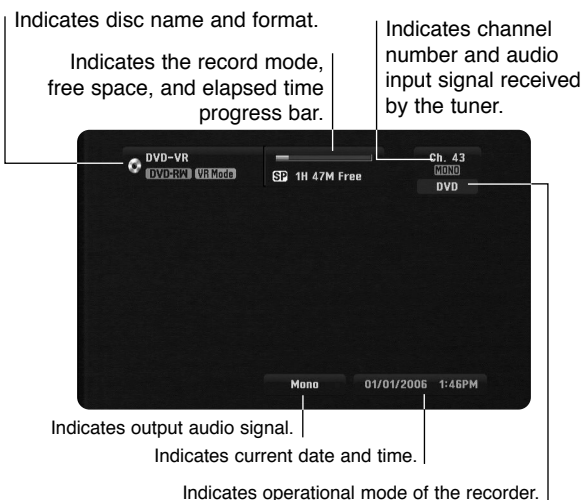
Some DVDs require specific operation or allow only limited operation during playback. When this occurs,

⊘ is displayed, action prohibited or not available.

Displaying Information While Watching TV

While watching TV, press DISPLAY to display/remove the information displayed on-screen.

e.g., when DVD-RW in VR mode is inserted.



Changing TV Audio Channel

Some TV programs are broadcast with both a main and a Secondary Audio Program (SAP). You can change the TV audio.

Press AUDIO repeatedly to change the TV audio, according to Broadcast audio signal as shown below.

- STEREO+SAP Audio Signal
Stereo → SAP → Mono → Stereo
- STEREO Audio Signal
Stereo → L → R → Mono → Stereo
- SAP Audio Signal
Mono → SAP → Mono
- MONO Audio Signal
Mono

The current audio channel is displayed on-screen.

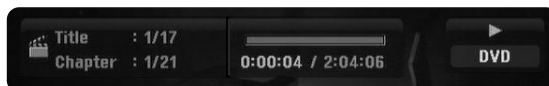
- If SAP is selected, but there is no SAP channel being broadcast, you will still hear the main audio (Mono or Stereo) channel.
- If the sound is poor quality when set to Stereo, you can often improve it by changing to Mono.

Displaying Disc Information on-screen

You can display various information about the disc or tape loaded on-screen. Some items can be changed using the menu.

1. Press DISPLAY once to show current status.

Example: DVD-Video disc



2. Press DISPLAY once again to show various playback information.
The items displayed differ depending on the disc type or playing status.



3. You can select an item by pressing ▲ / ▼ and change or select the setting by pressing ◀ / ▶.
For details about each item, see the pages in parentheses.
 - [Title]: Current title (or track) number/total number of titles (or tracks) (page 28)
 - [Chapter]: Current chapter number/total number of chapters (page 28)
 - [Time]: Elapsed playing time (page 30)
 - [Audio]: Selected audio language (DVD VIDEO only) or audio channel (page 29)
 - [Subtitle]: Selected subtitle (page 28)
 - [Angle]: Selected angle/total number of angles (page 30)
 - [Sound]: Selected sound mode (page 30)

Note:

If no button is pressed for 10 seconds, the on-screen display disappears.

Playback

Playing a Tape

1. Press VCR to control the VCR deck.
2. Insert a pre-recorded video cassette.
 - If the unit is powered off, it will power on automatically when the tape is loaded.
 - If the Timer indicator lights on the front panel display window, press STANDBY/ON once.
3. Press PLAY (▶) to start playback.
 - If a tape without a safety tab is inserted the unit starts playback automatically.
4. Press STOP (■) to stop playback.
 - If the tape reaches the end before you press STOP (■) the Recorder automatically stops, rewinds and ejects the tape.

Notes:

- S-VHS Quasi Playback (SQPB)
 - This Recorder can play back S-VHS recorded tapes.
 - SQPB is an abbreviation for S-VHS Quasi Playback.
- If you insert an unformatted disc during the VCR playback, the unit will stop the VCR playback and change to DVD mode automatically, then the disc initialize menu will appear.

Playing a DVD or Video CD

1. Press DVD to control the DVD deck.
2. Press OPEN/CLOSE (▲) to open the disc tray. Load your chosen disc in the tray, with the playback side down.
3. Press OPEN/CLOSE (▲) to close the tray. Playback starts automatically. If playback does not start, press PLAY (▶) or Starts playback using HOME menu.
4. To stop the playback, press STOP (■). The unit records the stopped point, depending on the disc. "II■" appears on the screen briefly. Press PLAY (▶) to resume playback (from the scene point). If you press STOP (■) again or unload the disc ("■" appears on the screen.), the unit will clear the stopped point.
5. Press OPEN/CLOSE (▲) to remove the disc. Press OPEN/CLOSE (▲) to close disc tray or press STANDBY/ON (⏻/I), the disc tray closes automatically and unit turns off.


Note:

- After loading a disc, the black screen may appear for a moment. It is not a malfunction.

VCR Playback Features

Buttons	Operations
EJECT (▲)	Ejects the tape in the VCR deck.
PAUSE ()	<p>Pause playback.</p> <p>Press repeatedly to step forward one frame at a time.</p> <ul style="list-style-type: none"> After 5 minutes in STILL mode the Recorder stops to protect the tape and video heads.
▶▶ (FORWARD)	<p>Scan forward.</p> <p>In Stop mode, fast forwards the tape.</p> <p>In Pause mode, starts slow motion playback.</p> <ul style="list-style-type: none"> After 3 minutes in SEARCH mode the Recorder returns to PLAY mode to protect the tape and video heads After 3 minutes in SLOW MOTION mode the Recorder goes back to PLAY mode to protect the tape and video heads.
◀◀ (BACKWARD)	<p>Scan backward.</p> <p>In Stop mode, rewinds the tape.</p> <ul style="list-style-type: none"> After 3 minutes in SEARCH mode the Recorder returns to PLAY mode to protect the tape and video heads.
CLEAR	Resets the current tape counter position to 0:00:00. To automatically goto tape counter position 0:00:00, press RETURN while the tape is in Stop mode.
CH (▲+ / ▼-)	Manually reduces noise on the screen during tape playback. Tracking is set automatically when a tape is inserted.
AUDIO	<p>Sets tape audio to HIFI, LEFT, RIGHT or NORMAL.</p> <p>Use ◀/▶ buttons to select tape audio you want.</p>
↶	Press repeatedly during playback to skip forward about 30 seconds (maximum 180 seconds).

DVD or Video CD Playback Features

Buttons	Operations	Discs
OPEN / CLOSE (▲)	Opens or closes the disc tray.	All Discs
PAUSE ()	<p>Pause playback.</p> <p>Press repeatedly to play Frame-by-Frame.</p> <p>You can also use ◀ / ▶ to step backward and forward while in Pause mode.</p> <ul style="list-style-type: none"> This function is forward only for Video CD. 	<p>All Discs</p> <p>DVD ALL VCD</p>
◀◀ (BACKWARD) / ▶▶ (FORWARD)	<p>During playback, press repeatedly to select the required scan speed.</p> <ul style="list-style-type: none"> DVD; 5 steps, Video CD, DivX, Audio CD; 3 steps <p>In Pause mode, press ◀◀ (BACKWARD) / ▶▶ (FORWARD) for slow motion playback (4 steps).</p> <ul style="list-style-type: none"> DVD; 4 steps, Video CD; 3 steps This function is forward only for Video CD. 	<p>DVD ALL VCD DivX ACD</p> <p>DVD ALL VCD</p>
◀◀ / ▶▶	<p>Press ▶▶ or ◀◀ briefly during playback to select the next chapter/track or to return to the beginning of the current chapter/track.</p> <p>Press ◀◀ twice in quick successions to step back to the previous chapter.</p> <ul style="list-style-type: none"> To go directly to any chapter during playback, press DISPLAY twice and use ▲ / ▼ to select the chapter or track (for Video CD) icon. Input the chapter/track number or use ◀ / ▶. On a Video CD with PBC, you must set PBC to [OFF] in the Setup menu to use this function (See page 24). On an Audio CD, to go directly to any track, enter the track number using the numbered buttons (0-9) during playback. 	<p>DVD ALL VCD DivX ACD MP3 WMA</p>
ZOOM	<p>Enlarge the video image.</p> <p>(x1 size → x2 size → x4 size → x1 size (normal size))</p> <p>You can move through the zoomed picture using ◀ ▶ ▲ ▼ buttons.</p>	DVD ALL
TITLE	<p>If the current DVD title has a menu, the title menu appears on the screen. Otherwise, the disc menu may appears.</p>	DVD
DISC MENU/LIST	The disc menu appears on the screen.	DVD
SUBTITLE	<p>During playback, press SUBTITLE then press ◀ / ▶ repeatedly to select a desired subtitle language.</p>	DVD DivX
	<p>Press repeatedly during playback to skip forward about 30 seconds.</p>	DVD ALL

DVD or Video CD Playback Features (Continued)

Buttons	Operations	Discs
PLAY MODE	Select a desired play mode while playback.	
	[A-] : Repeats a sequence between A (Start point) and B (End point) during playback. Press ENTER at your chosen end point then the repeat sequence begins.	DVD ALL VCD ACD Karaoke DVD
	[CHAPTER] : Repeats the current chapter.	DVD ALL
	[TITLE] : Repeats the current title.	DVD ALL Karaoke DVD
	[ALL] : Repeats the all titles/tracks.	VCD ACD -RW _{VR}
	[TRACK] : Repeats the current track.	VCD ACD MP3 WMA
	[RANDOM] : Random playback	VCD Karaoke DVD
	[Folder] : Repeats all the tracks on a folder of a disc.	MP3 WMA
	[OFF] : Does not play repeatedly.	DVD ALL
	<ul style="list-style-type: none"> On a Video CD with PBC, you must set PBC to [OFF] in the Setup menu to use this function (See page 24). If you press ►►I once during Repeat Chapter (Track) playback, the repeat playback cancels. By pressing ►►I during Random playback, the Recorder selects another title (track) and resumes Random playback. 	
AUDIO	Press AUDIO then press ◀ / ▶ repeatedly to hear a different audio language or audio track.	DVD
	<p>Note: Some discs feature both Dolby Digital and DTS soundtracks. There is no analog audio output when DTS is selected. To listen to the DTS soundtrack, connect this recorder to a DTS decoder via one of the digital outputs. See page 16 for connection details.</p> <p>Press AUDIO then press ◀ / ▶ repeatedly during playback to hear a different audio channel. With DVD-RW discs recorded in VR mode that have both a main and a Bilingual audio channel, you can switch between Main (L), Bilingual (R), or a mix of both (Main + Bilingual) by pressing AUDIO.</p>	-RW _{VR} -RW _{Video} +RW -R +R VCD

Special Playback Options

If a menu screen is displayed **DVD** **VCD**

In some cases, the disc menu might appear instead.

DVD

Use the ◀ ▶ ▲ ▼ buttons to select the title/chapter you want to view, then press ENTER to start. Press TITLE or DISC MENU/LIST to return to the menu screen.

VCD

Use the number buttons to select the track you want to view and press RETURN to return to the menu screen. Menu settings and operating procedures may differ. Follow the instructions on each menu screen. You may also set PBC to [OFF] (See page 24).

Time Search **DVD ALL** **DivX**

To start playing at any chosen time on the disc:

1. Press DISPLAY twice during playback. The time search box shows the elapsed playing time.
2. Press ▲ / ▼ to select the time clock icon and [:-::-:] appears.
3. Input the required start time in hours, minutes, and seconds from left to right. If you enter the wrong numbers, press ◀ / ▶ to move the under bar () to the wrong number. Then enter the correct numbers.
4. Press ENTER to confirm. Playback starts from the selected time.

Marker Search **DVD ALL** **VCD**

To enter a Marker

You can start playback from up to six memorized points. To enter a marker, press MARKER at the desired point on the disc. The Marker icon appears on the TV screen briefly. Repeat to enter up to six markers.

To Recall or Clear a Marked Scene

1. During disc playback, press SEARCH.
The marker search menu appears on the screen.
2. Use ◀/▶/▲/▼ to select a marker scene that you want to recall or clear.
3. Press ENTER and playback starts from the marked scene. Or, Press CLEAR and use ◀ / ▶ to select [OK] then press ENTER to delete marked scene from the list.
4. To remove the Marker Search menu, press RETURN (↵).

Camera Angle **DVD**

If the disc contains scenes recorded at different camera angles, you can change to a different camera angle during playback. Press DISPLAY then select the Angle icon during playback. Use ◀ / ▶ to select a desired angle. Note that the number of the current angle appears on the display.

Tip:

The Camera Angle icon is displayed on the TV screen when alternate angles are available.

3D Surround **DVD ALL** **VCD** **DivX**

This unit can produce a 3D Surround effect, which simulates multi-channel audio playback from two conventional stereo speakers, instead of the five or more speakers normally required to listen to multi-channel audio from a home theater system.

1. Press DISPLAY twice then use ▲ / ▼ to select the sound icon. Then, use ◀ / ▶ to select [3D SUR.].
2. To turn off the 3D Surround effect, select [NORMAL].

Last Scene Memory **DVD**

This Recorder memorizes last scene from the last disc that is viewed. The last scene remains in memory even if you remove the disc from the Recorder or switch off the Recorder. If you load a disc that has the scene memorized, the scene is automatically recalled.

Notes:

- Settings are stored in memory for use any time.
- This Recorder does not memorize settings of a disc if you switch off the Recorder before commencing to play it.
- Last Scene Memory function for a previous DVD title is erased once a different DVD title is played.

Finding Locations on a Disc **VCD**

You can directly access any point on a video CD using this function within 95% of progress bar while playing. This function will not work if any bookmarks have been set.

1. Press SEARCH during playback.
The progress bar appears on the TV screen.
2. Use ◀ / ▶ to find the desired starting position for playback.
3. Press ENTER to confirm the selected position.
Playback starts from the selected position.

Playing a DivX Movie File

The Recorder can play Divx files. Before playing DivX files, read "About DivX movie files" on right.

1. Press HOME and the Home menu appears.
2. Select [Movie] > [DISC] and press ENTER.
3. Use ▲ / ▼ to select a folder, and press ENTER twice.
A list of files in the folder appears.
4. Use ▲ / ▼ to select a file then press PLAY (▶).
Playback starts.
You can use variable playback functions. Refer to pages 28-30.



5. Press STOP (■) to stop the playback. The Movie menu appears.
6. Press RETURN (↵) to exit.

Notice for displaying the DivX subtitle

If the subtitle does not display properly, please follow the steps below.

1. Press PAUSE (||) when the subtitle appears.
2. Press and hold SUBTITLE about 3 seconds.
The language code will appear.
3. Press ◀ / ▶ to select another language code until the subtitle is displayed properly.
4. Press PLAY (▶) to continue playback.

Movie menu options

1. Press ▲ / ▼ to select a folder/file on the Movie menu then press ENTER.
Movie menu options appear.



2. Press ▲ / ▼ to select an option, and press ENTER.
 - **[Play]** Start playback the selected title.
 - **[Open]** Opens the folder and a list of files in the folder appears.
 - **[Dubbing]** Dubs the DivX movie to VCR. (page 39)

About DivX movie files

Available resolution size

under 720x576 (W x H) pixel.

Playable DivX file

“.avi”, “.divx”

Playable DivX subtitle

“.smi”, “.srt (SubRip only)”,

“.sub (Micro DVD format only)”,

- DivX subtitle except those listed above is not displayed on the TV screen.

Playable Codec format

“DIV3”, “MP43”, “DIVX”, “XVID”, “DX50”.

Playable Audio format

“AC3”, “PCM”, “MP2”, “MP3”, “WMA”.

- Sampling frequency: within 8 - 48 kHz (MP3), within 32 - 48kHz (WMA)
- Bit rate: within 8 - 320kbps (MP3), 32 - 192kbps (WMA)

CD-R Format:

ISO 9660 and JOLIET.

DVD±R/RW Format:

ISO 9660 (UDF Bridge format)

Maximum Files/Disc:

Less than 1999 (total number of files and folders)

Notes on DivX format

- The file name of the DivX subtitle is limited to characters.
- If there is impossible code to express in the DivX file, it may be displayed as “_” mark on the display.
- **If the number of the screen frame is over 29.97 frames per second, this unit may not operate normally.**
- **If the video and audio structure of recorded file is not interleaved, returns to the menu screen.**
- **If the file is recorded with GMC, the unit supports only 1-point of the record level.**

* GMC?

GMC is the acronym for Global Motion Compensation. It is an encoding tool specified in MPEG4 standard. Some MPEG4 encoders, like DivX or Xvid, have this option.

There are different levels of GMC encoding, usually called 1-point, 2-point, or 3-point GMC.

Playing an Audio CD or MP3/WMA files

The Recorder can play Audio CDs and MP3/WMA files. Before playing MP3/WMA files, read [MP3/WMA audio file requirement] on right.

1. Press HOME and the Home menu appears.
2. Select [Music] > [DISC] and press ENTER. The Audio CD or Music menu appears on the TV screen.



Example) Audio CD Menu

3. Use ▲/▼ to select a track or file then press PLAY (▶). Playback starts. You can use variable playback functions. Refer to pages 28-30.
4. To stop playback at any time, press STOP (■).
5. Press RETURN (↵) to exit.

Tips:

- You can view TV channel or video input source by pressing RETURN (↵). If you want to return to the Music menu, press DISC MENU/LIST.
- Press DISPLAY to view ID3-Tag information for the MP3 file. If ID3-Tag information is not present, [MP3 ID3 tag :None] will appear. If you select a folder, the number of subfolders and number of MP3/WMA files in the folder are displayed. Press DISPLAY again to remove the information screen.
- On the Music menu, you can display the folders on the disc. Use ▲▼◀▶ to select the "Folder" icon on the Music menu then press ENTER twice.
- On CDs, DVDs with mixed content (Audio tracks, MP3/WMA files, DivX files or JPEG files), you can select among the Music menu, Movie menu and Photo menu by pressing TITLE repeatedly.
- If you are in a file list and want to return to the Folder list, use the ▲/▼ to highlight [Folder] and press ENTER to return to the previous menu screen.

Audio CD and Music menu options

1. Press ▲ / ▼ to select a track/file or folder on the Audio CD or Music menu then press ENTER.



2. Use ▲ / ▼ to select an option, then press ENTER.
 - **[Play]** Start playback the selected track or file.
 - **[Open]** Opens the folder and a list of files in the folder appears.
 - **[Random]** Start or stop random playback.

Random

1. Press ▲ / ▼ to select a file then press ENTER. The menu options appear.
2. Press ▲ / ▼ to select [Random] option then press ENTER. The unit automatically begins random playback and "RANDOM" appears on the menu screen.
3. To return to normal playback, select [Random] option again then press ENTER.

Tip:

By pressing ◀▶/▶▶ during Random playback, the unit selects another track and resumes Random playback.

MP3/WMA audio file requirement

File extensions

".mp3", ".wma".

Sampling frequency:

within 8 - 48 kHz (MP3), within 32 - 48kHz (WMA)

Bit rate: within:

8 - 320kbps (MP3), 32 - 192kbps (WMA)

CD-R Format:

ISO 9660 and JOLIET.

DVD±R/RW Format:

ISO 9660 (UDF Bridge format)

Maximum Files/Disc:

Less than 1999 (total number of files and folders)

Viewing a JPEG files

This unit can play JPEG files. Before playing JPEG recordings, read "Photo file requirement" on page 34.

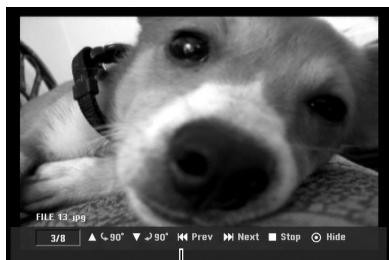
1. Press HOME and the Home menu appears.
2. Select [Photo] > [DISC] and press ENTER.
3. Use ▲▼◀▶ to select a file or folder and press ENTER.



2. Use ▲ / ▼ to select option and press ENTER.

Example: When you select a file.

3. Use ▲ / ▼ to select [Full Screen] then press ENTER.
The selected image is displayed in full screen.



Press ENTER to appear or disappear this menu.

4. To stop viewing at any time, press STOP (■).
5. Press RETURN (↵) to exit.

Notes:

- If the icon displays in the Photo menu, it means you cannot see those JPEG files.
- You can view TV channel or video input source by pressing RETURN (↵). If you want to return to the Photo menu, press DISC MENU/LIST.
- If you are in a file list and want to return to the Folder list, use the ▲/▼ to highlight and press ENTER to return to the previous menu screen.
- On CDs, DVDs Memory Card with mixed content (Audio tracks, MP3/WMA files, DivX files or JPEG files), you can select among the Music menu, Movie menu and Photo menu by pressing TITLE repeatedly.

Photo menu options

1. Use ▲▼◀▶ to select a file then press ENTER.
The menu options appear.



2. Use ▲ / ▼ to select an option then press ENTER to confirm your selection.
 - **[Open]** Opens the folder and a list of files in the folder appears.
 - **[Full Screen]** Shows the selected file as full screen.
 - **[Slide Show]** Displays Slide Show menu.

Still picture

Use PAUSE (||) while showing a picture to pause mode.

Skip Images

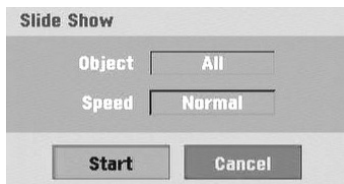
While viewing a picture, press ▶▶ or ◀◀ once to advance to the next file or return to the previous file.

Rotate Images

Use ▲ / ▼ while viewing a picture to flip the picture clockwise or counterclockwise.

View Slide Shows

1. Select [Slide Show] option on the Photo menu.
2. Press ENTER.



3. Use ◀ / ▶ / ▲ / ▼ to set the options.

[Object] option:

- [Selected] Views slide show only selected files.
- [All] Views slide show all files.

[Speed] option:

Sets the Slide Show speed to [Normal], [Slow], or [Fast].

4. Select the [Start] option then press ENTER to start the Slide Show.
5. Press STOP (■) to stop the Slide Show and returns to the Photo menu.

Tips:

- Use the CLEAR button to select all files, or cancel all marked files.
- Selecting multiple files
 1. Press MARKER.
A check mark appears on the file. Press MARKER again to cancel the marked file.
 2. Repeat step 1 to mark additional file.

Photo file requirement

File extensions

“.jpg”

Photo size:

Less than 4MB recommended

CD-R Format:

ISO 9660 and JOLIET.

DVD±R/RW Format:

ISO 9660 (UDF Bridge format)

Maximum Files/Disc:

Less than 1999 (total number of files and folders)

Notes on JPEG file

Progressive and lossless compression JPEG image files are not supported.

Recording

About DVD recording

Notes:

- This Recorder cannot record CD-R or CD-RW discs.
- Fingerprints and small scratches on a disc can affect playback and/or recording performance. Please take proper care of your discs.
- The company does not hold any responsibility to compensate the contents which should have been recorded, and any losses or damages (e.g. losses of business profit, or business intermission) that may arise from malfunction of this recorder (not recording/editing as intended).

Disc types and recording formats, modes, and settings

This recorder can play many different kinds of DVD discs: pre-recorded DVD-Video discs, DVD-RW, DVD-R, DVD+RW, DVD+R. The disc format for DVD-R, DVD+R, DVD+RW discs is always "Video format"—the same as pre-recorded DVD-Video discs. This means that once finalized, you can play a DVD-R, DVD+R, or DVD+RW in a regular DVD player. The DVD-RW disc format is Video Recording (VR) format or Video format. You can change Recording format, if required. (Reinitializing the disc will erase the contents of the disc.)

The recording mode is closely related to the disc format. If the disc format is Video Recording format, then the recording mode is VR mode; if the disc format is Video format, then the recording mode is Video mode (except for DVD-Video, which is not recordable, and so does not have a recording mode). These can be changed as required for each recording and determine the picture quality and how much space the recording will take up on the disc.

Notes for recording

- The recording times shown are not exact because the recorder uses variable bit-rate video compression. This means that the exact recording time will depend on the material being recorded.
- When recording a TV broadcast, if the reception is poor or the picture contains interference, the recording times may be shorter.
- If you record still pictures or audio only, the recording time may be longer.
- The displayed times for recording and time remaining may not always add up to exactly the length of the disc.
- The recording time available may decrease if you heavily edit a disc.
- If using a DVD-RW disc, make sure you change the recording format (Video mode or VR mode) before you record anything on the disc. See page 23 (Initialize) for how to do this.
- When using a DVD-R or DVD+R disc, you can keep recording until the disc is full, or until you finalize the disc. Before you start a recording session, check the amount of recording time left on the disc.
- When using a DVD-RW disc in Video mode, recording time available will only increase if you erase the last title recorded on the disc.
- The Delete Title option in the Title List (Original) menu only hides the title, it does not actually erase the title from the disc and increase the recording time available (except for the last recorded title on a DVD-RW disc in Video mode).
- Overwrite recording is available using DVD+RW discs.
- When using a DVD+R/RW, the recorder will execute the Menu-making operation to update the new title and editing when removing the disc from the recorder.

Recording time and picture quality (4.7GB DVD)

There are four preset recording quality modes:

- **XP** (Excellent Quality) – about 1 hour 20 minutes
- **SP** (Standard Quality) – about 2 hour
- **LP** (Low Quality) – about 4 hour
- **EP** (Extend Quality) – about 6 hour

Basic Recording from a TV

Follow the instructions below to record a TV program. Recording starts immediately and continues until the disc or tape is full or you stop the recording.

1. Switch on the Recorder, select the device (VCR or DVD) for Recording and load a recordable disc or tape. Also make sure that the TV input is set to this recorder.
2. Set a recording mode as necessary by pressing REC MODE repeatedly.
DVD: XP, SP, LP, EP.
VCR: SP, SLP.
3. Select the TV channel to record.
4. Use AUDIO to select the audio channel to record. The table below shows what will be recorded on the different settings for different types of broadcast. The last column (Monitor Audio) shows what you'll hear as it is recording.

TV Broadcast	Selected Audio	Broadcast Audio		Monitor Audio
		L Ch	R Ch	
MONO	MONO	MONO	MONO	MONO
STEREO	STEREO	L	R	STEREO
	Left	L	L	Left
	Right	R	R	Right
MONO+SAP	MONO	MONO	MONO	MONO
	SAP	SAP	SAP	SAP
STEREO +SAP	STEREO	L	R	STEREO
	SAP	SAP	SAP	SAP
	MONO	MONO	MONO	MONO

If you set the audio channel to SAP, but there is no SAP channel is broadcasted, only the main audio (mono or stereo) will be recorded.

5. Press ● REC once to start recording. The REC indicator lights in the display window.
6. Press STOP (■) to stop recording.

Notes:

- The maximum numbers of DVD titles are show below;
- DVD-R/RW : 99
- DVD+R/RW : 49
- If the Recorder is powered off during DVD recording, the recording will not be saved.

Instant Timer Recording

Instant Timer Recording allows you to make a recording easily of a preset length without using the program timer.

1. Follow steps 1-4 as shown left (Basic Recording from a TV).
2. Press ● REC repeatedly to select the recording time length. Recording starts after the first press.
DVD: Each subsequent press increases the recording time by 10 minutes.
VCR: Each subsequent press increases the recording time by 30 minutes (maximum 540 minutes). Please confirm the VHS tape has enough remaining time to be recorded before recording.

Checking the Recording Time

Press ● REC or DISPLAY once to check the recording time. The recalled setting will automatically return to the TV screen for a moment.

Also, remaining time of recording is shown in the display window.

To Extend the Recording Time

The recording time can be extended anytime by pressing ● REC.

Each subsequent press increases the recording time by 10 minutes (DVD) or 30 minutes (VCR).

To Pause the Recording

1. Press PAUSE (||) to pause the recording.
2. When you want to continue recording, press PAUSE (||) or ● REC.

Notes:

- If you press PAUSE (||) during the Instant Timer Recording, it will be canceled.
- The Recorder will automatically power off when the Instant Timer Recording ends.
- If the unit is DVD mode when the VCR Instant timer recording ends, the unit will not automatically power off.

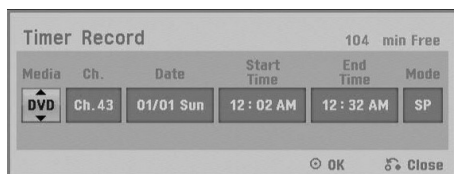
Timer Recording

The Timer Recording function allows you to record up to 16 programs within a period of one month.

1. Press HOME and the Home menu appears.
2. Select [TV] > [Timer Record] and press ENTER.



3. Select [NEW] and press ENTER.
The Timer Record menu will appear.



- [Media] – Choose a media (DVD or VCR).
 - [Ch.] – Choose a channel (2-69 or 1-125 for antenna or cable channels respectively, excluding skip channels), or one of the external inputs from which to record (AV1 or AV2).
 - [Date] – Choose a date up to 1 month in advance, or select a daily or weekly program.
 - [Start Time] – Set the recording start time.
 - [End Time] – Set the recording end time.
 - [Mode] – Choose a record mode.
DVD: EP, LP, SP, XP, or AT (Auto)
VCR: SP, SLP, or AT (Auto)
AT(Auto) mode determines how much time is available on the disc or tape and switches record mode, if necessary, to complete recording the program.
2. Enter the necessary information for your timer recording(s).
 - ◀ / ▶ (left/right) – Move the cursor left/right.
 - ▲ / ▼ (up/down) – Change the setting at the current cursor position.
 - Press RETURN (↵) to exit the Timer Record menu.
 3. Press ENTER to save the program.
 4. Press RETURN (↵) to exit the Timer Record List.
 5. Press STANDBY/ON (⏻/⏻) to turn off the unit.

Notes:

- You must insert a recordable disc or tape.
- The Timer indicator lights on the front panel display.
- The Recorder will record the audio according to the current TV tuner setting (Stereo, Mono or SAP). Use the AUDIO button to set the audio before switching the Recorder to Standby mode.
- The Recorder will automatically power off when the Timer Recording ends.
- If the unit is DVD mode when the VCR timer recording ends, the unit will not automatically power off.
- You must press STOP (■) to stop the Timer Recording.
- You cannot use the Timer Programming during the DVD or VCR recording.
- Displays “Duplicate Date” when the Programming time is overlapped.
- Displays “Duplicate Date” when the end time of any timer program and the start time of next program are the same. The very beginning portion of the later program may not be recorded. To avoid this set the end time 1 minute earlier.
- The caution message will appear on the TV screen 1 minute before Timer Recording starts while dubbing. Press STOP within 5 seconds to cancel the Timer Recording, otherwise the unit will start the Timer Recording.

Checking Timer Recording Details

Programming can be checked whenever the Recorder is turned on.

1. Press HOME and the Home menu appears.
2. Select [TV] > [Timer Record] and press ENTER.
3. Use ▲ / ▼ to select a program.
4. Press ENTER to edit the selected program.
Timer Record menu appears.

Canceling a Timer Recording

You can clear a timer setting anytime before the recording actually starts.

- Use ▲ / ▼ to select a program you want to erase on the Timer Recorder List menu, then press CLEAR and select [OK] than press ENTER.

Timer Recording Troubleshooting

Even though the timer is set, the recorder will not record when:

- The power has been unplugged or the power supply has been stopped.
- There is no disc (or tape) loaded.
- A non-recordable disc (or tape) is loaded.
- Disc Protect is set to [ON] in the Disc menu (see page 23).
- There are already 99 titles (DVD-RW, DVD-R), 49 titles (DVD+RW, DVD+R) recorded on the disc.

You cannot enter a timer program when:

- A recording is already underway.
- The time you're trying to set has already passed.
- There are already 16 timer programs set.

If two or more timer programs overlap:

- The earlier program takes priority.
- When the earlier program finishes, the later program starts.
- If two programs are set to start at exactly the same time, the program entered first takes priority.

If the disc is damaged, the recording may not complete successfully. In this case even though the Check field shows [Rec. OK], it may not be.

To record one TV program while watching another

1. Press TV/VCR to select the TV mode during recording. The TV indicator appears.
2. Using the TV, select the channel to be viewed.

Tip (VCR mode only)

Always use PAUSE (II) for best results when making changes during recording .

For example: To change channels during recording, first press PAUSE (II) to put the unit in pause mode. Then select the desired channel on the Recorder, and press PAUSE (II) again to resume recording.

Dubbing from DVD to VCR

You can copy the contents of a DVD to a VHS tape using the DUBBING button.

1. Insert a blank VHS videotape into the VCR deck.
2. Insert the disc you wish to copy in the DVD deck and close the disc tray.
3. Find the place on the DVD (or Disc) from which you want to start dubbing using the PLAY, FF, REW and PAUSE functions.
For best results, pause playback at the point from which you want to record.
4. Set the resolution to 480i using the OUTPUT STATUS button before dubbing.
 - You cannot dub when the resolution is set to 720p/1080i.
 - The dubbing cannot be obtained correctly using 480p resolution.
5. Press the DUBBING button.
The Dubbing menu appears.



6. Use ▲ / ▼ / ◀ / ▶ to select the desired Record Mode: SP or SLP (3 times SP).
7. Select [Dubbing] then press ENTER or DUBBING to start copying.
8. To stop dubbing at any other time, press STOP (■).
You must stop the dubbing process manually when the DVD movie ends, or the unit may replay and record over and over again.

Note:

If the DVD (or Discs) you are attempting to copy is copy protected, you will not be able to copy the disc. It is not permitted to copy Macrovision encoded DVDs (or Discs). [Copy-protected. Cannot record.] is displayed on the TV screen.

Tip:

If you press PAUSE during Dubbing mode, both the DVD and VCR decks go into Pause mode and the DUBBING button blinks on the front panel. While in Pause mode, you can adjust the DVD playback position using PLAY, REW, FF, PAUSE, etc. The VCR deck will remain in Pause mode. To resume Dubbing, press the DUBBING button twice.

Dubbing from VCR to DVD

You can copy the contents of a VHS tape to a DVD using the DUBBING button. This allows you to archive your old VHS tapes to DVD.

1. Insert a blank DVD disc in the DVD deck and close the disc tray.
2. Insert the VHS video tape you wish to copy into the VCR deck.
3. Find the place on the VHS tape from which you want to start dubbing using the PLAY, FF, REW and PAUSE functions. For best results, pause playback at the point from which you want to record.
4. Press the DUBBING button.
The Dubbing menu appears.



5. Use ▲ / ▼ / ◀ / ▶ to select the desired Record Mode: EP, LP, SP or XP.
6. Select [Dubbing] then press ENTER or DUBBING to start copying.
7. To stop dubbing at any other time, press STOP (■).
Dubbing will stop automatically when the VHS tape ends.

Note:

If the VHS video tape you are attempting to copy is copy protected, you will not be able to copy the tape. It is not permitted to copy Macrovision encoded tapes.

Tip:

If you press PAUSE during Dubbing mode, both the DVD and VCR decks go into Pause mode and the DUBBING button blinks on the front panel. While in Pause mode, you can adjust the VCR playback position using PLAY, REW, FF, PAUSE, etc. The DVD deck will remain in Pause mode. To resume Dubbing, press the DUBBING button twice.

Recording from External Components

You can record from an external component, such as a camcorder or VCR, connected to any of the Recorder's external inputs.

1. Make sure that the component you want to record from is connected properly to the Recorder. See page 17.
2. Press AV INPUT repeatedly to select the external input to record from.
 - AV1: Audio/Video Input mounted on back panel.
 - AV2: Audio/Video Input mounted on front panel.
 - DV: DV Input mounted on front panel.
3. Load a recordable disc or tape.
4. Set a recording mode as necessary by pressing REC MODE repeatedly.
DVD: XP, SP, LP or EP.
VCR: SP or SLP
5. Press ● REC once to start recording.
The REC indicator lights in the display window.
6. Press STOP (■) to stop recording.

Notes:

- Check that the Audio In settings DV Record Audio are as you want them. See page 22.
- If your source is copy-protected using CopyGuard, you will not be able to record it using this recorder. See Copyright on page 9 for more details.
- Recording continues until you press STOP (■) or the disc is full.
- To record for a fixed length of time, see [Instant Timer Recording] on page 36.

Additional Information

Simultaneous Play and Record

You can play a DVD during the VCR playback or recording, press DVD to change DVD mode and perform the DVD playback.

Notes:

- You cannot play or record both DVD and VCR at the same time.
- You can not change VCR mode during the DVD recording mode.
- If you wish VCR playback or record during the DVD playback, press VCR to change VCR mode and perform the VCR playback or recording.

Recording from DV Input

Before DV dubbing

You can connect a DV-equipped camcorder to this recorder using a single DV cable for input and output of audio, video, data and control signals.

- This recorder is only compatible with DV-format (DVC-SD, DV25) camcorders. Digital satellite tuners and Digital VHS video recorders are not compatible.
- You cannot connect more than one DV camcorder at a time to this recorder.
- You cannot control this recorder from external equipment connected via the DV IN jack (including two recorders).
- It may not always be possible to control the connected camcorder via the DV IN jack.
- Digital camcorders can usually record audio as stereo 16-bit/48kHz, or twin stereo tracks of 12-bit/32kHz. This recorder can only record one stereo audio track. Set [DV Record Audio] option to Audio 1 or Audio 2 as required (see page 22).
- Audio input to the DV IN jack should be 32 or 48kHz (not 44.1kHz).
- Picture disturbance on the recording may occur if the source component pauses playback or plays an unrecorded section of tape, or if the power fails in the source component, or the DV cable becomes disconnected.

Recording from a Digital Camcorder

You can record from a digital camcorder connected to the DV IN jack on the front panel of this recorder. Using the recorder's remote, you can control both the camcorder and this recorder.

Before recording, make sure that the audio input for the DV IN jack is set up (see page 22).

Tips:

- The source signal must be DVC-SD format.
- Some camcorders cannot be controlled using this recorder's remote.
- If you connect a second recorder using a DV cable, you cannot control the second DVD from this one.
- You cannot control this unit remotely from a component connected to the DV IN jack.
- You cannot record date and time information from a DV cassette.

1. Make sure your digital camcorder is connected to the front panel DV IN jack. See page 17.
2. Connect a camcorder to the unit using DV cable.
3. Set the resolution to 480i using the OUTPUT STATUS button before dubbing.
 - You cannot record when the resolution is set to 720p/1080i.
 - The recording cannot be obtained correctly using 480p resolution.
4. Check that the DV audio input is as you require. You can choose between Audio 1 (original audio) and Audio 2 (overdubbed audio).
 - DV Input is set from the DV Record Audio in sub-menu of the Setup menu. See [DV Record Audio] on page 22 for more information.
5. Press AV INPUT repeatedly to select the DV input.
6. Find the place on the camcorder tape which you want to start recording.
For best results, pause playback at the point from which you want to record.
 - Depending on your camcorder, you can use this recorder's remote to control the camcorder using the STOP, PLAY, BACKWARD, FORWARD and PAUSE functions.
7. Press ● REC once to start recording.
 - Recording is automatically stopped if the recorder detects no signal.
 - You can pause or stop the recording by pressing PAUSE (||) or STOP (■).
You cannot control the camcorder from this Remote Control during recording.
 - In Video mode, the final frame of the recording may remain displayed on screen for a while after recording stops.

Troubleshooting

If you cannot get a picture and/or audio through the DV IN jack, check the bullet points:

- Make sure the DV cable is properly connected.
- Try switching off the connected equipment then switch back on.
- Try switching the audio input.

Note:

Depending on the connected camcorder, you may not be able to control it using the Remote Control supplied with this recorder.

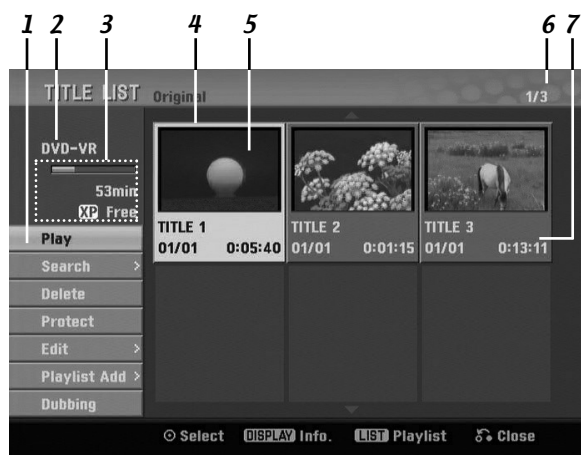
Editing

Title List and Chapter List Menu Overview

Using the Title List menu you can edit video content. The editing features available in the Title List menu depend on whether you are editing video on DVD, and whether you're editing Original content, or a Playlist.

There are two ways to edit VR mode DVD-RW discs. You can directly edit the Original content of the disc, or you can create and edit a Playlist. The Playlist doesn't actually change any of the content on the disc, but just controls how the content is played back.

1. Press DISC MENU/LIST to display the TITLE LIST menu.
Playback should be stopped when you do this.
 - When selecting titles, use the ▲ / ▼ buttons to display the previous/next page if there are more than six titles.
 - If you are editing a VR mode disc, press DISC MENU/LIST to switch between Original and Playlist menu.
 - On the left side of the screen are the menu options. The main part of the screen shows thumbnails of the titles (or chapter) on the DVD. You can change these thumbnails using the THUMBNAIL button. (see [Changing Title Thumbnails] on page 43.)
 - Press DISPLAY to display the information of selected title on the Title List menu.
 - After selecting a title or chapter on the Title List or Chapter List menu, then press ENTER. The menu options on the left side of the menu. Use ▲ / ▼ to select a option then press ENTER to confirm your selection.
2. To exit the TITLE LIST menu, press RETURN (↵) repeatedly.



1. Menu options: To display menu option, select a title or chapter then press ENTER. The options displayed differ depending on the disc type.
 - [Play] Start playback of the selected title or chapter. The hidden titles and chapters on the DVD+R/RW cannot be play back.
 - [Search]
 - [Chapter] Displays Chapter List of the Title.
 - [Time] Search time for you want start point of the title .
 - [Delete] Deletes the title or chapter. (page 45)
 - [Move] Moves chapter position on [Chapter List - Playlist] menu (page 47).
 - [Protect] Protects accidental recording, editing or deleting of the title.(page 47)
 - [Edit] Edits or Deletes a part of the title.
 - [Title Name] Edits the title name. (page 46).
 - [Delete Part] Deletes a part of the Title (page 45).
 - [Divide] Divides a title into two (page 48).
 - [Hide (Show)] Hides (or Shows) the selected title or chapter. (page 47)
 - [Playlist Add] Adds the titles or chapter to the Playlist. (page 44)
 - [Dubbing] Dubs the title to VCR.
 - [Title] Displays Title List of the chapter.
 - [Combine] Combines two chapters into one (page 48).
 - [Full Play] Starts playback of the selected title including the hidden chapters.
2. Current media.
3. Indicates the record mode, free space, and elapsed time progress bar.
4. Currently selected title.
5. Thumbnail.
6. Shows the selected title number and total number of titles.
7. Shows the title name, recorded date, and recording length.

VR Mode: Original and Playlist Editing

Titles, Chapters and Parts

Titles in the disc's original content contain one or more chapters. When you insert a disc's title into the Playlist, all the chapters within that title also appear. In other words, chapters in the Playlist behave exactly as chapters on a DVD-Video disc do. Parts are sections of Original or Playlist titles. From the Original and Playlist menu you can add or delete parts. Adding a chapter or title to the Playlist creates a new title made up of a section (ie., chapter) of an Original title. Deleting a part removes part of a title from the Original or Playlist menu.

Notes:

- When editing using the Delete, Add and Move functions, the start and end frames may not be exactly as set in the start and end point display.
- During Playlist playback, you may notice a momentary pause between edits. This is not a malfunction.

Is editing a DVD like editing a video tape?

No. When you edit a video tape you need one video deck to play the original tape and another to record the edits. With DVD, you edit by making a 'Playlist' of what to play and when to play it. On playback, the Recorder plays the disc according to the Playlist.

About word 'Original' and 'Playlist'

-RWvR

Throughout this manual, you will often see the words Original and Playlist to refer to the actual content and the edited version.

- **Original:** content refers to what's actually recorded on the disc.
- **Playlist:** content refers to the edited version of the disc — how the Original content is to be played.

Adding Chapter Markers

Chapter **-RWvR** **+RW** **+R**

You can create chapters within a title by inserting chapter marks at the desired points.

Note:

Chapter markers are inserted at regular intervals automatically. You can change this interval from the Initial Setup menu (see [Auto Chapter] on page 22).

During recording or playing back, at the point you want to start a new chapter, press **CHP. ADD**. A chapter marker icon appears on the TV screen.

Changing Title Thumbnails

Thumb. **-RWvR** **+RW** **+R**

Each title displayed in the Title List menu is represented by a thumbnail picture taken from the start of that title or chapter.

If you prefer, select a different still picture from within a title.

Press **THUMBNAIL** to make the currently displayed picture the one that appears in the Title List menu. The still picture that you choose appears in both the Original or Playlist menu.

Tip:

You can also change the thumbnail picture of the title on the Chapter List menu. Select a chapter on the Chapter List menu then press **THUMBNAIL**. The thumbnail picture of the title that includes the chapter is changed.

Making a New Playlist

-RWVR

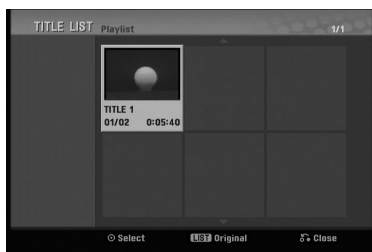
Use this function to add an Original title or chapter to the Playlist. When you do this, the whole title is put into the Playlist (you can delete bits you don't need later - see [Deleting an Original or Playlist Title/Chapter] on page 45).

The title appears in the Playlist complete with the chapter markers that appear in the Original. However, if you add more chapter markers to the Original later, these are not automatically copied over into the Playlist title.

1. Choose a title or chapter on the [TITLE LIST-Original] menu or [Chapter List-Original] menu to put into the Playlist, then press ENTER. The menu options appears on the left side of the screen.
2. Use ▲ / ▼ to select [Playlist Add] option then press ►.



3. Select [New Playlist] then press ENTER. The new title appears in the updated Playlist. All chapters of the title are added to the Playlist.



Adding Additional Title / Chapters to the Playlist

-RWVR

You can add an Original title or chapter to add to a Playlist title even if it is already registered.

1. Choose a title or chapter on the [TITLE LIST-Original] menu or [Chapter List-Original] menu to put into the Playlist, then press ENTER. The menu options appears on the left side of the screen.
2. Use ▲ / ▼ to select [Playlist Add] from menu options then press ►.



3. Choose a Title List-Playlist that is already registered to insert a title or chapter, then press ENTER.
4. Repeat steps 1-3 to add additional title or chapter on the Playlist. You can view the added chapters on the [Chapter List-Playlist] menu.



5. Press RETURN (↵) to exit, or DISC MENU/LIST to go back to the [Title List-Original] menu.

Deleting an Original or Playlist Title/Chapter

When you erase a title or chapter from the Playlist menu, you only remove it from the Playlist; the title/chapter remains in the Original menu.

If you choose to delete a title or chapter from the Original (title/chapter) menu, the title or chapter is actually deleted from the disc and the remaining time available for recording increases. Titles/chapters deleted from the Original are also removed from the Playlist.

Note:

It may not be possible to delete chapters that are less than 3 seconds long.

1. Use ◀ / ▶ / ▲ / ▼ to choose a chapter or title you want to delete on the [TITLE LIST] or [Chapter List] menu then press ENTER. The menu options appears on the left side of the screen.
2. Select [Delete] option from the options on the menu.

Example: Title List (DVD-VR)



3. Press ENTER to confirm. The confirm message for deleting will appear.
4. Use ◀ / ▶ to select [OK] then press ENTER. The selected chapter or title is deleted. After pressing ENTER, the new, updated menu is displayed.
5. Repeat steps 1 - 4 to continue to delete from the menu.
6. Press RETURN (↵) repeatedly to exit the menu.

Notes:

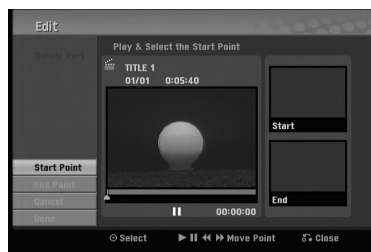
- When +RW recording, the deleted title's name is changed to [Deleted Title].
- If more than two titles are repeatedly deleted, the titles are combined into one.
- When you are deleting a title or chapter, only the last one on DVD+R/RW increases remaining recording time.

Deleting a Part -RWVR

You can delete a part which you do not want in the title.

1. Use ◀ / ▶ / ▲ / ▼ to choose a title you want to delete on the Title List menu then press ENTER. The options appears on the left side of the menu.
2. Select [Edit] > [Delete Part] option then press ENTER. [Edit] menu appears on the TV screen.

Example: Edit (Delete Part) (DVD-VR)



3. Starts playback and use pause step, search and slow-motion to find the starting point.
4. Press ENTER at the starting point of the section you want to delete. [End Point] icon is highlighted. The part is indicated on the Progress Bar.
5. Use pause step, search and slow-motion to find the ending point.
6. Press ENTER at the ending point of the section you want to delete. You can cancel the selected point, use ▲ / ▼ to select [Cancel] icon then press ENTER.
7. If you finish to edit, select [Done] icon then press ENTER. The confirm message for deleting will appear. Use ◀ / ▶ to select [OK] then press ENTER. The selected part is deleted from the title and Title List menu appears.

Notes:

- It may not be possible to delete parts that are less than 3 seconds long.
- If you select [Cancel] then press ENTER, the Recorder will go to previous option and into Pause mode.

Naming a Title

You can name Original and Playlist titles independently.

1. Choose the title you want to name on the Title List menu, then press ENTER.
The menu options appears on the left side of the menu.
2. Use ▲/▼ to select [Edit] > [Title Name] option then press ENTER.
Keyboard menu appears.



3. Enter a name for the title. Use ◀/▶/▲/▼ to select a character then press ENTER to confirm your selection.
 - **Language** : Selects a keyboard type.
 - **Space**: Inserts a space at the cursor position.
 - **Delete**: Deletes the character to the left of the cursor position.
 - ◀/▶: Moves the cursor left or right.
 - **OK**: Confirms the name you have entered.
 - **Cancel**: Deletes all characters and exits the Keyboard menu.

Remote control buttons for entering a name

- **PLAY (▶)**: Inserts a space at the cursor position.
 - **PAUSE (II)**: Deletes the character to the right of the cursor position.
 - **◀◀ / ▶▶**: Moves the cursor left or right.
 - **STOP (■), CLEAR**: Deletes the character to the left of the cursor position.
 - **0-9**: Enters the character corresponding to the selected column.
 - **DISC MENU/LIST, DISPLAY**: Switches the keyboard type.
4. Choose [OK] then press ENTER to fix the name and return to the previous menu screen.
 5. Press RETURN (↵) repeatedly to exit the menu.

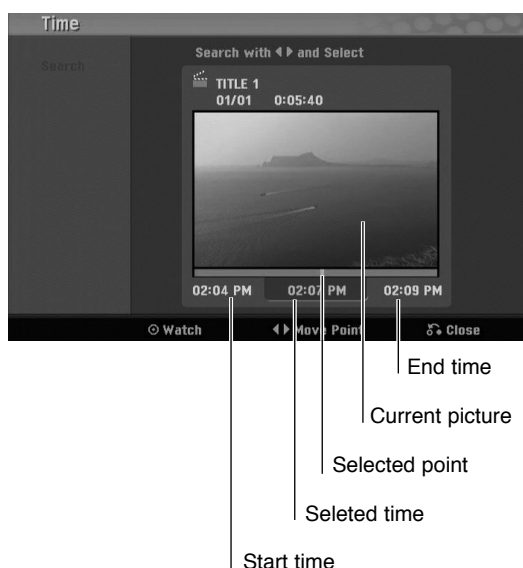
Notes:

- Names can be up to 32 characters long.
- For discs formatted on a different recorder, you will see only a limited character set.
- When recording on DVD-R, DVD+R or DVD+RW discs, the entered name is displayed on the DVD player only after finalization.

Time Search

You can select start point of the title.

1. Use ◀/▶/▲/▼ to choose a title on the TITLE LIST menu then press ENTER.
The options appears on the left side of the menu.
2. Select [Search] > [Time] option then press ENTER.
[Time] menu appears on the TV screen.



3. Use ◀/▶ to find the point you want to start.
The point increase 1 minute step.
If you press and hold ◀/▶ then the point increase 5 minute step.
4. Press ENTER to start selected point.

Moving a Playlist Chapter **-RWvR**

Use this function to re-arrange the playing order of Playlist chapters on the Chapter List-Playlist menu.

Note:

This function is not available if there is only one chapter.

1. Select a chapter on the Chapter List-Playlist menu.
2. Press ENTER.
The menu options appears on the left side of the menu.
3. Use ▲ / ▼ to select [Move] option from Playlist options then press ENTER.



4. Use ◀ / ▶ / ▲ / ▼ to choose the place you want to move the chapter then press ENTER.
After pressing ENTER, the updated menu is displayed.

Hide a Chapter/Title

+RW +R

You can skip playing chapters or titles without deleting from the disc.

1. Use ▲▼◀▶ to choose a chapter or title you want to hide on the [TITLE LIST] or [Chapter List] menu, then press ENTER.
Options appear on the left side of the screen.
2. Select [Edit] > [Hide] option.

Example: Title List (DVD+RW)



3. Press ENTER to confirm.
The chapter's or title's thumbnail will dim.

Tip:

If you select a hidden chapter or title on the TITLE LIST or Chapter List menu, you can 'show' it by choosing [Show] option on the menu. After doing that, you are able to see the chapter or title.

Protect a Title

+RW +R -RWvR

Use this function to protect against accidental recording, editing or deleting of the title.

1. Press DISC MENU/LIST to display the [TITLE LIST] menu.
2. Use ▲▼◀▶ to choose a title you want to protect then press ENTER.
Options appear on the left side of the screen.
3. Select [Protect] from the options.

Example: Title List (DVD+RW)



4. Press ENTER to confirm.
The lock mark will appears on the title's thumbnail.

Tip:

If you select a title that has already been protected on the Title List menu, you can 'unprotect' it by choosing [Unprotect] option from the Title List menu options. After doing that, you can edit and delete the title.

Divide One Title Into Two

+RW

Use this command to split a title up into two new titles.

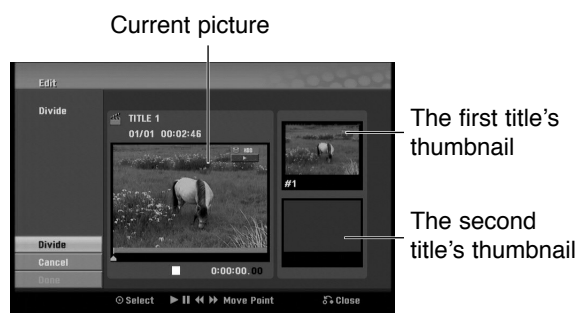
1. On the Title List menu, select a title you want to divide then press ENTER.
The menu options appears on the left side of the screen.

2. Select [Edit] > [Divide] option.

Example: Title List (DVD+RW)



3. Press ENTER.
[Edit (Divide)] menu appears.



4. Use play, pause, step, search and slow-motion to find the point you want to divide the title.
5. Select [Divide] option then press ENTER at the point.
To reset the point, select [Cancel] option then press ENTER. Repeat from step 3.
6. Choose [Done] option then press ENTER to fix the dividing point.
The title is divided into two new titles. It take up to 4 minutes to divide.

Note:

You cannot select dividing point less than 3 seconds.

Combining Two Chapters Into One

-RWVR +RW +R

Use this function to combine two adjacent chapters into one.

1. On the Chapter List menu, select the second chapter of the two chapters you want to combine then press ENTER.
The menu options appears on the left side of the screen.
2. Use ▲ / ▼ to select [Combine] option.
The combine indicator appears between the two chapters you want to combine.

Example: Title List (DVD+RW)



3. Repeat steps 1 - 2 to continue to combine from the menu.
4. Press RETURN (↵) repeatedly to exit the menu.

Notes:

This function cannot operate listed as below;

- If there is only one chapter within the title.
- If you select first chapter.
- If two chapters created by erasing a part from an original title.
- If two chapters created from different titles.
- If two chapters created by moving an order from an original title.

Overwriting Recording **+RW**

To overwrite a new video recording on a previously recorded title, follow these steps. This feature is not available for DVD+Rs, that always record at the end of the Disc.

1. Select input source you want to record (TV channel, AV1-2, DV).
2. Press DISC MENU/LIST to display the TITLE LIST menu.



3. Use ▲▼◀▶ to choose a title you want to overwrite.
4. Press ● REC to start overwrite recording. Overwrite recording starts from the start point of the title.
5. Press STOP (■) to stop the overwrite recording. The new title is created and updated menu is displayed.

Notes:

- This function is not available for a protected title.
- **If the overwrite is longer than the recording length of the current title, the next title is overwritten. But if next title is protected, the overwriting stops at the starting point of the title.**
- If the selected title's recording length is less than 10 seconds, the next title is overwritten. But if the next title is protected, overwriting stops.

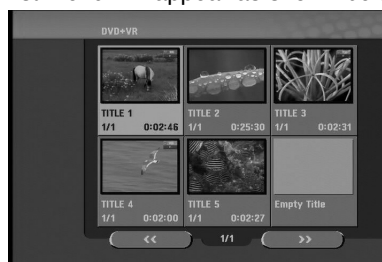
Viewing Title List menu displayed on other DVD Recorders or Players

+RW +R

You can view the Title List menu displayed on the other DVD player that is capable of playing DVD+RW or DVD+R discs.

1. Insert DVD+R or DVD+RW disc recorded already.

2. Press TITLE in Play mode or DVD tuner mode. Title List menu will appear as shown below.



3. To play back a title, select the title you want then press ENTER or PLAY (▶).

Tip:

You can remove the Title List menu by pressing STOP (■).

Playing Your Recordings on Other DVD Players (Finalizing a Disc)

Most regular DVD players can play finalized discs recorded in Video mode, finalized DVD+R or DVD+RWs. A small number of players can also play DVD-RW discs recorded in VR mode, finalized or not. Check the manual that came with the other player to check what formats of discs it will play.

Finalizing 'fixes' the recordings and editings in place so that the disc can be played on a regular DVD player or computer equipped with a suitable DVD-ROM drive.

Finalizing a Video mode disc creates a menu screen for navigating the disc. The menu can be accessed by pressing DISC MENU/LIST or TITLE.

To finalize a disc, refer to [Finalize] on page 23.

Notes:

- Unfinalized DVD+RW is playable on regular DVD players.
- The edited contents of a DVD+RW disc is compatible on regular DVD players only after finalization.
- Any edited contents of the DVD+R disc are not compatible on regular DVD players. (Hide, chapter combine, added chapter mark, etc.)
- How long finalization takes depends on the type of disc, how much is recorded on the disc, and the number of titles on the disc.

Language Code List

Use this list to input your desired language for the following initial settings: Disc Audio, Disc Subtitle, Disc Menu.

Language	Code	Language	Code	Language	Code	Language	Code
Abkhazian	6566	Fiji	7074	Lingala	7678	Singhalese	8373
Afar	6565	Finnish	7073	Lithuanian	7684	Slovak	8375
Afrikaans	6570	French	7082	Macedonian	7775	Slovenian	8376
Albanian	8381	Frisian	7089	Malagasy	7771	Somali	8379
Ameharic	6577	Galician	7176	Malay	7783	Spanish	6983
Arabic	6582	Georgian	7565	Malayalam	7776	Sudanese	8385
Armenian	7289	German	6869	Maltese	7784	Swahili	8387
Assamese	6583	Greek	6976	Maori	7773	Swedish	8386
Aymara	6588	Greenlandic	7576	Marathi	7782	Tagalog	8476
Azerbaijani	6590	Guarani	7178	Moldavian	7779	Tajik	8471
Bashkir	6665	Gujarati	7185	Mongolian	7778	Tamil	8465
Basque	6985	Hausa	7265	Nauru	7865	Tatar	8484
Bengali; Bangla	6678	Hebrew	7387	Nepali	7869	Telugu	8469
Bhutani	6890	Hindi	7273	Norwegian	7879	Thai	8472
Bihari	6672	Hungarian	7285	Oriya	7982	Tibetan	6679
Breton	6682	Icelandic	7383	Panjabi	8065	Tigrinya	8473
Bulgarian	6671	Indonesian	7378	Pashto, Pushto	8083	Tonga	8479
Burmese	7789	Interlingua	7365	Persian	7065	Turkish	8482
Byelorussian	6669	Irish	7165	Polish	8076	Turkmen	8475
Cambodian	7577	Italian	7384	Portuguese	8084	Twi	8487
Catalan	6765	Japanese	7465	Quechua	8185	Ukrainian	8575
Chinese	9072	Javanese	7487	Rhaeto-Romance	8277	Urdu	8582
Corsican	6779	Kannada	7578	Rumanian	8279	Uzbek	8590
Croatian	7282	Kashmiri	7583	Russian	8285	Vietnamese	8673
Czech	6783	Kazakh	7575	Samoan	8377	Volapük	8679
Danish	6865	Kirghiz	7589	Sanskrit	8365	Welsh	6789
Dutch	7876	Korean	7579	Scots Gaelic	7168	Wolof	8779
English	6978	Kurdish	7585	Serbian	8382	Xhosa	8872
Esperanto	6979	Laotian	7679	Serbo-Croatian	8372	Yiddish	7473
Estonian	6984	Latin	7665	Shona	8378	Yoruba	8979
Faroese	7079	Latvian, Lettish	7686	Sindhi	8368	Zulu	9085

Area Code List

Choose a area code from this list.

Area	Code	Area	Code	Area	Code	Area	Code
Afghanistan	AF	Ethiopia	ET	Malaysia	MY	Saudi Arabia	SA
Argentina	AR	Fiji	FJ	Maldives	MV	Senegal	SN
Australia	AU	Finland	FI	Mexico	MX	Singapore	SG
Austria	AT	France	FR	Monaco	MC	Slovak Republic	SK
Belgium	BE	Germany	DE	Mongolia	MN	Slovenia	SI
Bhutan	BT	Great Britain	GB	Morocco	MA	South Africa	ZA
Bolivia	BO	Greece	GR	Nepal	NP	South Korea	KR
Brazil	BR	Greenland	GL	Netherlands	NL	Spain	ES
Cambodia	KH	Islands	HM	Netherlands Antilles	AN	Sri Lanka	LK
Canada	CA	Hong Kong	HK	New Zealand	NZ	Sweden	SE
Chile	CL	Hungary	HU	Nigeria	NG	Switzerland	CH
China	CN	India	IN	Norway	NO	Taiwan	TW
Colombia	CO	Indonesia	ID	Oman	OM	Thailand	TH
Congo	CG	Israel	IL	Pakistan	PK	Turkey	TR
Costa Rica	CR	Italy	IT	Panama	PA	Uganda	UG
Croatia	HR	Jamaica	JM	Paraguay	PY	Ukraine	UA
Czech Republic	CZ	Japan	JP	Philippines	PH	United States	US
Denmark	DK	Kenya	KE	Poland	PL	Uruguay	UY
Ecuador	EC	Kuwait	KW	Portugal	PT	Uzbekistan	UZ
Egypt	EG	Libya	LY	Romania	RO	Vietnam	VN
El Salvador	SV	Luxembourg	LU	Russian Federation	RU	Zimbabwe	ZW

Troubleshooting

Check the following guide for the possible cause of a problem before contacting service.

Symptom	Cause	Correction
No power.	<ul style="list-style-type: none"> The power cord is disconnected. 	<ul style="list-style-type: none"> Plug the power cord into the wall outlet securely.
Abnormal or no picture.	<ul style="list-style-type: none"> The TV is not set to receive Recorder signal output. 	<ul style="list-style-type: none"> Select the appropriate video input mode on the TV so the picture from the Recorder appears on the TV screen.
	<ul style="list-style-type: none"> The video cable is not connected securely. 	<ul style="list-style-type: none"> Connect the video cable into the jacks securely.
	<ul style="list-style-type: none"> Unit output setting and TV resolution capabilities mismatch. 	<ul style="list-style-type: none"> Check TV capability. Check mode of connections (eg. S-Video, Components etc.). Check unit Resolution setting according to TV capability and mode of connection.
	<ul style="list-style-type: none"> Wrong connection. 	<ul style="list-style-type: none"> Check the connection.
No sound.	<ul style="list-style-type: none"> The equipment connected with the audio cable is not set to receive Recorder signal output. 	<ul style="list-style-type: none"> Select the correct input mode of the audio receiver so you can listen to the sound from the Recorder.
	<ul style="list-style-type: none"> The audio cables are not connected securely. 	<ul style="list-style-type: none"> Connect the audio cable into the jacks securely.
	<ul style="list-style-type: none"> The power of the equipment connected with the audio cable is turned off. 	<ul style="list-style-type: none"> Turn on the equipment connected with the audio cable.
	<ul style="list-style-type: none"> The AUDIO options are set to the wrong position. 	<ul style="list-style-type: none"> Set the AUDIO options to the correct position.
	<ul style="list-style-type: none"> In HDMI mode, audio selection is not set to PCM. 	<ul style="list-style-type: none"> Change AUDIO setup to PCM mode.
The playback picture is poor.	<ul style="list-style-type: none"> The disc is dirty. 	<ul style="list-style-type: none"> Clean the disc.
	<ul style="list-style-type: none"> The TV channels are not tuned in properly. 	<ul style="list-style-type: none"> Check tuning, carry out tuning again.
	<ul style="list-style-type: none"> Tape heads are dirty. 	<ul style="list-style-type: none"> Clean video heads.
	<ul style="list-style-type: none"> Tape is a rental or was recorded on another VCR. 	<ul style="list-style-type: none"> Use CH (▲/▼) for manual tracking adjustment while tape is playing.
Do not display the closed caption information.	<ul style="list-style-type: none"> Did you set the resolution to 480p using OUTPUT STATUS? 	<ul style="list-style-type: none"> If the resolution is set to 480p, the closed caption information is not output from the COMPONENT and HDMI OUT jack.
Picture from external input is distorted.	<ul style="list-style-type: none"> The video signal from the external component is copy-protected. 	<ul style="list-style-type: none"> You cannot connect via the Recorder. Connect the component directly to your TV.
Some channels are skipped over when using CH (▲ / ▼).	<ul style="list-style-type: none"> The skipped channels were deleted with the CH. Add/Del feature. 	<ul style="list-style-type: none"> Use the CH. Add/Del feature to restore channels. See [To Add or Erase Channels] on page 20.

Symptom	Cause	Correction
The Recorder does not start playback.	<ul style="list-style-type: none"> No disc is inserted. No tape is inserted. 	<ul style="list-style-type: none"> Insert a disc or tape. (Check that the disc or tape indicator in the display window is lit.)
	<ul style="list-style-type: none"> An unplayable disc is inserted. 	<ul style="list-style-type: none"> Insert a playable disc. (Check the disc type and Regional code.)
	<ul style="list-style-type: none"> The disc is placed upside down. 	<ul style="list-style-type: none"> Place the disc with the playback side down.
	<ul style="list-style-type: none"> The disc is not placed within the guide. 	<ul style="list-style-type: none"> Place the disc on the disc tray correctly inside the guide.
	<ul style="list-style-type: none"> The disc is dirty. 	<ul style="list-style-type: none"> Clean the disc.
	<ul style="list-style-type: none"> The Rating level is set. 	<ul style="list-style-type: none"> Cancel the Rating function or change the rating level.
Video tape cannot be inserted.	<ul style="list-style-type: none"> Is the cassette compartment empty? 	<ul style="list-style-type: none"> Eject the tape in.
The Remote Control does not work properly.	<ul style="list-style-type: none"> There is an obstacle in the path of the Remote Control and this unit. 	<ul style="list-style-type: none"> Remove the obstacle.
	<ul style="list-style-type: none"> The batteries in the Remote Control are exhausted. 	<ul style="list-style-type: none"> Replace the batteries with new ones.
	<ul style="list-style-type: none"> The Remote Control is not pointed at the remote sensor of the Recorder. 	<ul style="list-style-type: none"> Point the Remote Control at the remote sensor of the Recorder.
	<ul style="list-style-type: none"> The Remote Control is too far from the Recorder. 	<ul style="list-style-type: none"> Operate the Remote Control within 23ft (7m).
	<ul style="list-style-type: none"> This Remote Control use the same buttons for VCR and DVD functions (ex.PLAY). 	<ul style="list-style-type: none"> When using a VCR, first press the VCR button. When using a DVD, first press the DVD button.
	<ul style="list-style-type: none"> The remote control's code does not match. 	<ul style="list-style-type: none"> If the power has been unplugged or the power supply has been stopped, the unit code is changed to C code automatically. Reset the remote control code of the unit.
Camcorder image is not shown.	<ul style="list-style-type: none"> Camcorder is off. 	<ul style="list-style-type: none"> Turn camcorder on and operate properly.
Camcorder image via A/V input or DV IN to Recorder is not shown on TV screen.	<ul style="list-style-type: none"> The recorder's source is incorrect. 	<ul style="list-style-type: none"> Use AV INPUT to select input channel (AV1, AV2 or DV IN).
Timer recording is not possible.	<ul style="list-style-type: none"> Clock in record is not set to correct time. 	<ul style="list-style-type: none"> Set clock to correct time.
	<ul style="list-style-type: none"> Timer has been programmed incorrectly. 	<ul style="list-style-type: none"> Reprogram Timer.
	<ul style="list-style-type: none"> Has the power supply been stopped temporarily? 	<ul style="list-style-type: none"> If the power has been unplugged or the power supply has been stopped, the Timer Recording setting is cancelled. Reset the clock setting and Timer Recording setting. (If you set the clock setting to Auto, the clock is set automatically.)
	<ul style="list-style-type: none"> ② (TIMER Record) indicator light does not appear after programming timer. 	<ul style="list-style-type: none"> Reprogram Timer and turn off the Recorder enable timer.
	<ul style="list-style-type: none"> The TV program has copyonce signal. 	<ul style="list-style-type: none"> Use DVD-RW discs formatted in VR mode.

Symptom	Cause	Correction
Picture or sound of broadcasting channel is weak or missing.	<ul style="list-style-type: none"> • Antenna or cables are loose. • Wrong Tuning Band is selected in the Recorder Setup menu. 	<ul style="list-style-type: none"> • Tighten connections or replace cable. • Try [Tuning Band Select] options; see page 20 for details.
Can't play disc recorded on this Recorder on another DVD player.	<ul style="list-style-type: none"> • The disc was recorded in Video mode. • Some players will not play even a finalized disc recorded in Video mode. • The disc was recorded in VR mode. • Discs recorded with copy-once material cannot be played on other players. 	<ul style="list-style-type: none"> • Finalize the disc; see page 23. • No solution. • The other player must be RW compatible in order to play it. • No solution.
Cannot record or did not record successfully.	<ul style="list-style-type: none"> • The remaining blank space on the disc is insufficient. • The source you are trying to record is copy-protected. • When setting the recording channel, the channel is tuned on the TV's own tuner. • When recording to a Video mode disc, programs that are copy-once protected cannot be recorded. 	<ul style="list-style-type: none"> • Use another disc. • You cannot record the source. • Select the channel on the Recorder's built-in TV tuner. • Use a VR mode formatted disc for copy-once material.
Stereo Audio Record and/or Playback not present.	<ul style="list-style-type: none"> • TV is not Stereo-compatible. • Broadcast program is not in stereo format. • Recorder A/V Out jacks are not connected to TV A/V In jacks. • Recorder Audio/Video Out is not selected for viewing at the TV. • Recorder's TV audio channel is set to SAP or MONO. 	<ul style="list-style-type: none"> • No solution. • No solution. • Make A/V connections. Stereo is available only via A/V output from Recorder. • Select AUX or A/V source as TV input. • Set TV audio channel mode to Stereo. See [Changing TV Audio Channel] on page 25.

Reset the Recorder

If you observe any of the following symptoms...

- When the Recorder is plugged in, but the power will not turn on or off.
- When the display window does not working.
- When the Recorder does not operate normally.

You can reset the Recorder as follows :

- Press and hold the STANDBY/ON button on the front panel for more than five seconds. This will force the Recorder to power off. Press the STANDBY/ON button on the front panel again to turn the Recorder back on.
- Unplug the power cord and then plug the power cord again after more than five seconds.

Specifications

General

Power requirements	AC 120 V, 60 Hz
Power consumption	Power On : 27 W, Power Off : 0.7 W
Dimensions (approx.)	430 X 78.5 X 310 mm (16.9 x 3.1 x 12.2 inches) (w x h x d)
Mass (approx.)	5.2 kg (11.44 lbs)
Operating temperature	5°C to 35°C (41°F to 95°F)
Operating humidity	5 % to 90 %
Signal system	NTSC

Recording

Recording format	DVD VideoRecording, DVD-VIDEO
Recordable discs	DVD-ReWritable, DVD-Recordable, DVD+ReWritable, DVD+Recordable
Recordable time	DVD ; Approx. 1 hour 20 minutes (XP mode), 2 hours (SP mode), 4 hours (LP mode), 6 hours (EP mode) VCR ; SP: 2 HOURS (T-120), SLP: 6 HOURS (T-120)/8 HOURS (T-160)

Video recording format

Sampling frequency	27MHz
Compression format	MPEG 2

Audio recording format

Sampling frequency	48kHz
Compression format	Dolby Digital

VCR Specifications

Head system	Four head helical scan azimuth system
Timer	12-hour display type with AM, PM
Tape speed	SP: 33.35 mm/sec, LP: 16.67 mm/sec, SLP: 11.12 mm/sec
Tape width	12.7 mm
Rewind time	About 180±30 seconds (T-120)
Antenna	75 ohms (VHF/UHF)
VHF output signal	Channel 3 or 4 (Switchable)
Channel coverage	VHF: 2-13, UHF: 14-69, CATV: 1-125 (4A, A-W, W+1 - W+84, A-5 - A-1)
Frequency range	20Hz to 20kHz
Signal-to-noise ratio	43dB
Dynamic range	88 dB
Channel separation	60 dB

DVD Specifications

Laser system	Semiconductor laser, wavelength 650 nm
Frequency response	DVD (PCM 48 kHz): 8 Hz to 22 kHz, CD: 8 Hz to 20 kHz
Signal-to-noise ratio	More than 95dB
Harmonic distortion	Less than 0.008%
Dynamic range	More than 90 dB

Inputs

ANTENNA IN	Antenna or CATV input, 75 ohms
VIDEO IN (AV1,2)	1.0 Vp-p 75 ohms, sync negative, RCA jack x 2
AUDIO IN (AV1,2)	-6 dBm more than 47 kohms, RCA jack (L, R) x 2
S-VIDEO IN	(Y) 1.0 V (p-p), 75 Ω , negative sync, Mini DIN 4-pin x 1 (C) 0.286 V (p-p) 75 Ω
DV IN	4 pin (IEEE 1394 standard)

Outputs

VIDEO OUT	1.0 Vp-p 75 Ω , sync negative, RCA jack x 1
S-VIDEO OUT	(Y) 1.0 V (p-p), 75 Ω , negative sync, Mini DIN 4-pin x 1 (C) 0.286 V (p-p) 75 Ω
COMPONENT VIDEO OUT (PROGRESSIVE SCAN)	(Y) 1.0 V (p-p), 75 Ω , negative sync, RCA jack x 1 (Pb)/(Pr) 0.7 V (p-p), 75 Ω , RCA jack x 2
HDMI video/audio output	19 pin (HDMI standard, Type A)
Audio output (digital audio)	0.5 V (p-p), 75 Ω , RCA jack x 1
Audio output (optical audio)	Optical connector x 1
Audio output (analog audio)	2.0 Vrms (1 kHz, -6 dB), 600 Ω , RCA jack (L, R) x 2
RF OUT	Channel 3 or 4 (Switchable)

Accessory:

Video cable	1	Audio cable (L, R)	1
RF 75-ohm Coaxial Cable	1	Remote Control	1
Batteries	2		

Design and specifications are subject to change without notice.

WARRANTY (Only in U.S.A.)



LIMITED WARRANTY

USA ONLY

ONLY FOR PRODUCT PURCHASED IN U.S.A.

CONSUMER VIDEO 1-90

JVC COMPANY OF AMERICA (JVC) warrants this product and all parts thereof, except as set forth below ONLY TO THE ORIGINAL RETAIL PURCHASER to be FREE FROM DEFECTIVE MATERIALS AND WORKMANSHIP from the date of original purchase for the period shown below. ("The Warranty Period")

PARTS	1 YR	LABOR	90 DAYS
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THIS LIMITED WARRANTY IS VALID ONLY IN THE FIFTY (50) UNITED STATES, THE DISTRICT OF COLUMBIA AND IN THE COMMONWEALTH OF PUERTO RICO.

WHAT WE WILL DO:

If this product is found to be defective within the warranty period, JVC will repair or replace defective parts with new or rebuilt equivalents at no charge to the original owner. Such repair and replacement services shall be rendered by JVC during normal business hours at JVC authorized service centers. Parts used for replacement are warranted only for the remainder of the Warranty Period. All products may be brought to a JVC authorized service center on a carry-in basis. Color televisions with a screen size of 27" or greater qualify for in-home service. In such cases, a technician will come to your home and either repair the TV there or remove and return it if it cannot be repaired in your home.

WHAT YOU MUST DO FOR WARRANTY SERVICE:

Please do not return your product to the retailer

Instead, return your product to the JVC authorized service center nearest you. If shipping the product to the service center, please be sure to package it carefully, preferably in the original packaging, and include a brief description of the problem(s). Please call 1-800-252-5722 to locate the nearest JVC authorized service center. Service locations can also be obtained from our website <http://www.jvc.com>. If your product qualifies for in-home service, the service representative will require clear access to the product.

If you have any questions concerning your JVC Product, please contact our Customer Relations Department at 800-252-5722

WHAT IS NOT COVERED:

This limited warranty provided by JVC does not cover:

1. Products which have been subject to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, or if repaired or serviced by anyone other than a service facility authorized by JVC to render such service, or if affixed to any attachment not provided with the products, or if the model or serial number has been altered, tampered with, defaced or removed;
2. Initial installation, installation and removal from cabinets or mounting systems.
3. Operational adjustments covered in the Owner's Manual, normal maintenance, video and audio head cleaning;
4. Damage that occurs in shipment, due to act of God, and cosmetic damage;
5. Signal reception problems and failures due to line power surge;
6. User Removal Memory Devices/Video Pick-up Tubes/CCD Image Sensors are covered for 90days from the date of purchase;
7. Accessories;
8. Batteries (except that Rechargeable Batteries are covered for 90 days from the date of purchase);
9. Products used for commercial purposes, including, but not limited to rental.
10. Loss of data resultant from malfunction of hard drive or other data storage device.

There are no express warranties except as listed above.

THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN.

JVC SHALL NOT BE LIABLE FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE, OR ANY OTHER DAMAGES, WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES, RECORDS OR DISCS) RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion of incidental or consequential damages or limitations on how long an implied warranty lasts, so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

JVC COMPANY OF AMERICA
DIVISION OF JVC AMERICAS CORP.

1700 Valley Road
Wayne, NJ 07470

<http://www.jvc.com>

REFURBISHED PRODUCTS CARRY A SEPARATE WARRANTY, THIS WARRANTY DOES NOT APPLY. FOR DETAIL OF REFURBISHED PRODUCT WARRANTY, PLEASE REFER TO THE REFURBISHED PRODUCT WARRANTY INFORMATION PACKAGED WITH EACH REFURBISHED PRODUCT.

For customer use:

Enter below the Model No. and Serial No. which is located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No. :

Serial No. :

Purchase date :

Name of dealer :

MEMO

REFERENCE

[illegible]

MEMO

REFERENCE

TO OUR VALUED CUSTOMER ———

THANK YOU FOR PURCHASING THIS JVC PRODUCT.
WE WANT TO HELP YOU ACHIEVE A PERFECT EXPERIENCE.

**NEED HELP ON HOW TO HOOK UP?
NEED ASSISTANCE ON HOW TO OPERATE?
NEED TO LOCATE A JVC SERVICE CENTER?
LIKE TO PURCHASE ACCESSORIES?**

DR-MV7SU

JVC[®] IS HERE TO HELP!
TOLL FREE: 1(800)252-5722
<http://www.jvc.com>

Remember to retain your Bill of Sale for Warranty Service.

————— **Do not attempt to service the product yourself** —————

Caution

To prevent electrical shock, do not open the cabinet.
There are no user serviceable parts inside.
Please refer to qualified service personnel for repairs.

BT-51005-9
(0904)

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